



INTERNATIONAL SOYBEAN VARIETY EXPERIMENT

**FOURTH REPORT OF RESULTS
1976**

W.H. Judy and D.K. Whigham



International Soybean Program

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COLLEGE OF AGRICULTURE
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

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Fourth Report of Results

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University of Illinois at Urbana-Champaign

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FOREWORD

The International Soybean Variety Experiment (ISVEX) was conducted again during the year 1976 by cooperators in many countries throughout the world. In addition, joint variety evaluation trials were organized with the International Institute for Tropical Agriculture (IITA) and with the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA). The results of all of these variety trials were returned to INTSOY for analysis and are included in this publication.

INTSOY was established at the University of Illinois and the University of Puerto Rico to give leadership within a network of national and international organizations for soybean research and educational work. The objective of this program is to expand the use of soybeans for human food. The geographic orientation is toward tropical and subtropical areas of the world where protein-calorie nutrition problems tend to be concentrated. However, the perspective is world-wide.

ISVEX was initiated in 1973 as the first part of the genetic improvement program of INTSOY. The objectives are to evaluate soybean cultivars (varieties) for wide environmental adaptability and to provide countries with improved cultivars for direct introduction or for use in breeding programs. The response of cultivars is analyzed for high stable yield and other desirable agronomic characteristics. Other important dividends have been obtained through accumulation of more knowledge about the response of soybeans to different management skills, ranges of temperature and day-length, and various soil conditions. With the cumulative results from more growing seasons, the objectives of this trial are being attained. For the first time, multi-year means for characteristics of cultivars can be calculated within and across environmental zones, for geographical areas within zones, and for selected countries. This has improved the capability for expanded interpretation of results and leads to more accurate prediction of the behavior of cultivars under different environmental conditions. The importance of careful cultivar selection and improved management during production and harvesting is clearly demonstrated.

A world-wide variety evaluation program such as ISVEX requires the cooperation and resources of many organizations and individuals. Foremost in importance are those cooperators who conduct the trials. They record data and send them to INTSOY for analysis. The United States Agency for International Development has provided the general program resources to make ISVEX possible. The Food and Agriculture Organization of the United Nations has provided technical supervision and assistance in sending trials to a number of countries. Other international organizations have provided support, especially the United Nations Development Program. The facilities and services, including the Statistical Laboratory, of the Department of Agronomy, University of Illinois at Urbana-Champaign, are gratefully acknowledged.

Leadership in organizing this ISVEX was provided by D. Keith Whigham with the assistance of Robert Dunker. William H. Judy has ably succeeded Dr. Whigham and is giving leadership to ISVEX, SPOT, and SIEVE soybean varietal evaluation trials with the efficient assistance of Henry J. Hill. The varietal development work in Puerto Rico and seed increase for these trials has been provided by E. H. Paschal II. The sincere appreciation of all in the INTSOY network is expressed to the many who have made the variety evaluation program and the results reported in this publication possible.

INTSOY is pleased to add the Fourth Report of Results of ISVEX to the INTSOY Publication Series. The First, Second, and Third Reports of ISVEX are designated numbers 8, 11, and 15 in the Series, respectively.

William N. Thompson
Director
International Soybean Program (INTSOY)

INTERNATIONAL SOYBEAN VARIETY EXPERIMENT Fourth Report of Results

This publication is the fourth report of results from the International Soybean Variety Evaluation Experiment (ISVEX), organized in 1973 by the International Soybean Program (INTSOY) at the University of Illinois, under a contract with the Agency for International Development, U.S. Department of State.

ISVEX was designed to meet the following objectives:

1. To test the adaptation of soybean cultivars (varieties) under a wide range of environmental conditions
2. To provide research workers with an opportunity to compare local and introduced cultivars
3. To provide a source of new germplasm, which a cooperator may use directly or incorporate into his breeding program
4. To identify areas of the world that have a potential for soybean production
5. To evaluate the response of the soybean to different environments.

MATERIALS AND METHODS - ISVEX SITES

Procedures

Instructions for management and data collection for ISVEX were sent with the seed shipment to each cooperator. Soybean seed for planting was provided to each cooperator in individual row packages. Granular inoculant was provided for distribution in the row with the seed prior to covering the seed with soil. The experiment was designed as a randomized complete block with four replications. Each variety was planted once in each block in a plot which consisted of four rows 5 m long and 60 cm apart. All observations, including the grain yield, were obtained from the two center rows.

It was suggested in the instructions that a trial site be chosen which had an identical crop history and where the soil was well drained. A soil analysis was recommended for determination of pH, organic matter, nitrogen, phosphorus, and potassium. It was recommended that a basal application of 25 kg/ha N, 25 kg/ha P, and 25 kg/ha K be broadcast and worked into the plot.

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Sufficient seed was provided to overplant approximately 50%. It was recommended that the plants be thinned soon after emergence to a stand of one plant per 5 cm.

The method of weed control suggested was mechanical or chemical according to the facilities available to the cooperator.

Chemicals were recommended for control of insects.

Cultivars

The pedigrees of soybean cultivars evaluated in the fourth ISVEX during 1976 and early 1977 are described in Table 1. These cultivars were selected for their consistent high yield performance for several years in the U.S. Department of Agriculture Regional Soybean Trials which originate in Lafayette, Indiana, and Stoneville, Mississippi. The entries were selected from U.S. cultivars in order to provide access to adequate quantities of high-quality seed. Certified or foundation seed was purchased from sources in the areas of the United States where each variety was grown. At least one cultivar from each of the maturity groups 00 through IX was selected. There were 20 cultivars retained from the third ISVEX¹ and six new cultivars were added. The cultivars Bonus, Hampton 266A, Hardee, Semmes, and Tracy were deleted, whereas, Bragg, Cutler 71, Essex, Hill, Ransom, and Steele were added.

The cultivars were divided into groups according to their relative maturity and distributed among cooperators according to the environmental zone. Some cultivars were common to more than one zone. The entries Clark 63, Calland, Columbus, Forrest, Williams, and Woodworth were common to all zones. Later maturing cultivars were distributed in tropical zones while earlier maturing entries were included for sites closer to temperate areas (Table 2).

In the instructions for the ISVEX trials it was suggested that the cooperator might wish to substitute one or two local soybean cultivars for those which were supplied by INTSOY. Many cooperators did substitute and the data on the performance of these cultivars may be observed in the table showing the analysis of data for that particular location.

Experiment Sites

The experiment sites were divided into environmental zones which were defined according to latitude and altitude. Separating the trial sites by latitude permits evaluation of cultivars under similar conditions of day length. Separation according to altitude permits evaluation under similar conditions of day- and nighttime temperatures. There was some variation

¹ Whigham, D. K., and W. H. Judy, "International Soybean Variety Experiment Third Report of Results," INTSOY Series No. 15, University of Illinois at Urbana-Champaign, 1978, 369pp.

within each zone in temperature, moisture, and solar radiation. The limits of each of the 13 zones and the number of sites are shown in Table 3. The environmental zones were defined by each 10° increment in latitude from the equator and according to three altitude ranges divided 0 - 500 m, 501 - 1000 m, and higher than 1000 m.

The environment dictated the optimum planting time for each site. Plantings were made throughout the calendar year. The first planting was made on March 9, 1976 and the last planting on March 14, 1977. At several sites, the trial was planted more than once during the year.

The Fourth ISVEX was dispatched to 292 sites in 84 countries. Data were returned from 125 sites of which 25 were in Africa, 43 in Asia, and 21 in South America. Useful data were obtained at 114 sites in 58 countries which are listed in Table 4. Figure 1 shows the locations of these countries. The experiment was tested under a wide range of environmental conditions which are represented by sites which range in latitude from 33° South in La Platina, Chile to 52° North in Radzikow, Poland and by a range in elevation from 1820 m in Leku, Ethiopia to -68 m in Deir Alla, Jordan. However, 63 trials were located within 20° of the equator and at altitudes lower than 500 m.

Data Collected

Data were reported for each plot by cooperators as follows:

Yield: Weight in grams of clean, dry grain from 5 m of the two center rows which is a harvest area of 6 m^2 .

Days to flower: Days from date of emergence to date when 50% of the plants have flowered.

Days to maturity: Days from date of emergence to date when 95% of the pods are ripe.

Nodule number: The number of nodules on the root system at the time when the first flowers appear and a second count of nodules three weeks after date of first flowering.

Nodule dry weight: Dry weight in grams of the nodules associated with the root system at the time first flowers appear and again three weeks after first flowering.

Plant height at maturity: Height in centimeters from the ground surface to the top of the main stem at maturity.

Lodging score: Estimated rating of lodged or down plants on a scale of 1 (all erect) to 5 (all down) as observed at time of maturity.

Shattering score: Estimated rating of the amount of shattering of seed from the pods on a scale of 1 (no seed shattered) to 5 (over 50% shattered) at the time of maturity.

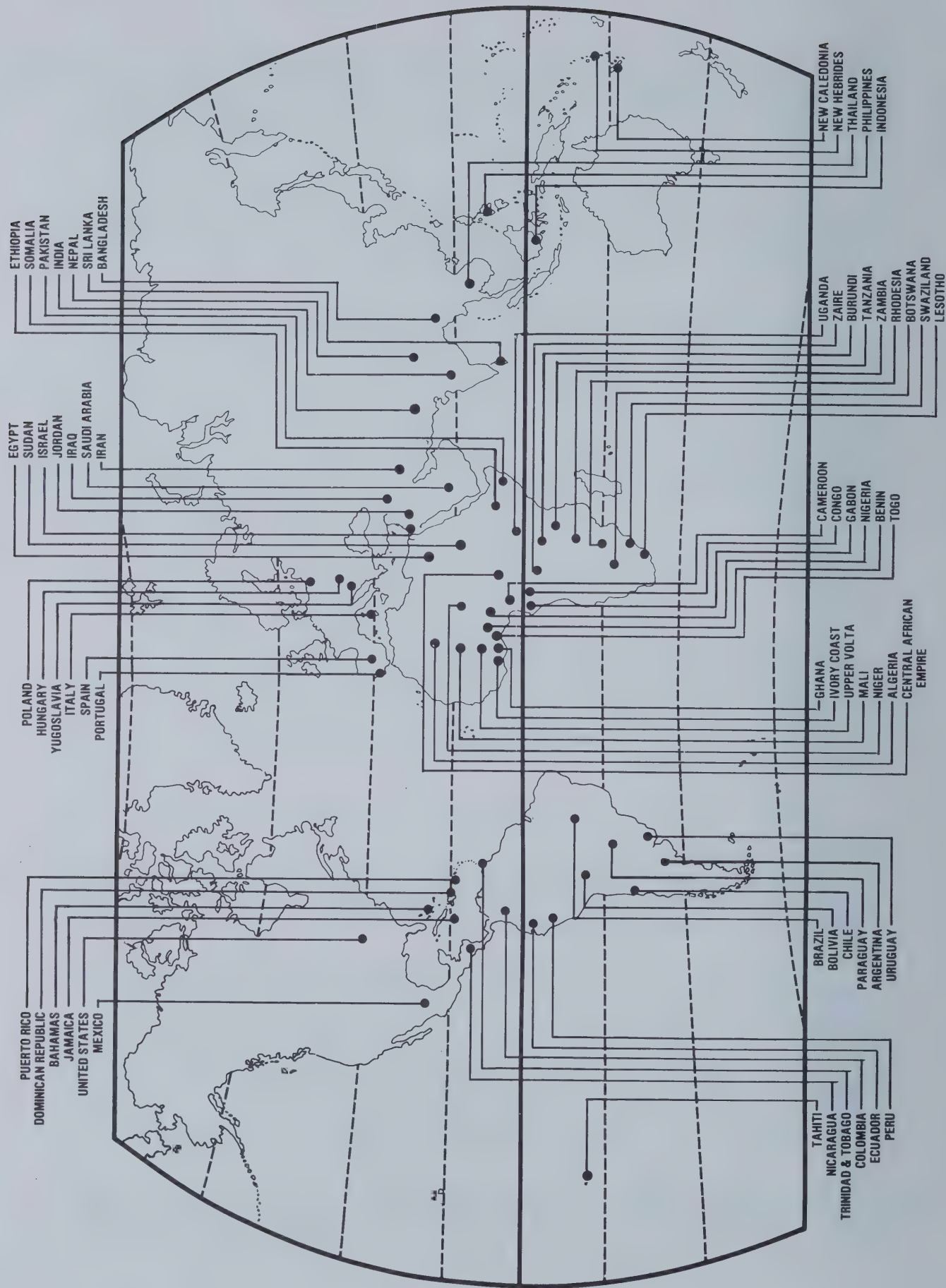


Figure 1. Countries from which data were collected in the fourth International Soybean Variety Evaluation Experiment.

Plants harvested: Total number of plants harvested from the two center rows of each plot.

Pods per plant: Average number of pods per plant at time of harvest.

Seed weight: Weight in grams of 100 randomly selected seeds from the dried, cleaned grain.

Quality of seed: Estimated rating of seed quality after harvest considering the amount of wrinkling, defective seed coats, off-color seed, and moldy or rotten seed according to a scale of 1 (very good quality) to 5 (very poor quality).

Disease rating: Estimated rating of the severity of the three most serious diseases attacking soybeans in the trial according to a rating scale of 1 (highly resistant) to 5 (leaves covered with disease).

Statistical Analysis of Data

Analysis of variance was completed for variables for which data were reported from more than one replication of the trial at each site during the same season. Means, standard error of a cultivar mean, coefficient of variation, and the least significant difference (LSD) of cultivar means at the 5% level are reported for analyzable variables from each experiment site. Correlation coefficients were computed between all traits reported.

Protein and oil contents were determined on the dry weight basis by a near-infrared light reflectance instrument in the Department of Agronomy at the University of Illinois. The analyses were made from one sample of each cultivar which was composited across replications at each trial site by the cooperator who returned the sample to INTSOY for analysis.

A combined analysis was prepared for all trial locations within an environmental zone where there were five or more trials. In some cases, a combined analysis was also prepared for a restricted geographical area within an environmental zone where there was a sufficient number of trial sites available.

MATERIALS AND METHODS - JOINT INTSOY/IITA SITES

Procedures

This publication also includes the report of results from the first joint soybean variety evaluation experiments which were conducted by INTSOY and the International Institute for Tropical Agriculture (IITA) which is located near Ibadan, Nigeria. This joint trial was organized by INTSOY and IITA during 1975 in order to expand the range of germplasm available to co-operators and to reduce confusion of efforts by cooperators who might be expected to conduct both the INTSOY and IITA soybean variety trials. These joint INTSOY/IITA trials were sent to cooperators identified by both organizations in Africa which were located between the latitudes of 20° N and 20° S. This region primarily encompasses the tropical rain forest conditions.

The trials were conducted similar to the ISVEX trials except that eight varieties were supplied by INTSOY and eight varieties by IITA. Otherwise, procedure and instructions for conducting the trial were the same.

Cultivars

The soybean cultivars tested in the first joint INTSOY/IITA trial during 1976 are listed in Table 2. Those entries with the TGx and TGM prefixes were supplied by IITA. INTSOY supplied eight cultivars normally distributed to environmental zones I, II, and IV. Those included Bossier, Clark 63, Cobb, Davis, Forrest, Improved Pelican, Jupiter, and Williams. Of the eight entries Clark 63, Forrest, and Williams were also common to all ISVEX environmental zones. No substitution was suggested for any of the 16 countries.

Experiment Sites

Seventy-nine INTSOY/IITA trials were dispatched to cooperators in African countries located in environmental zones I through VI. The experiment was tested under many environmental conditions as represented by the range in latitude from 16° S in Magoye, Zambia to 13° N in Maradi, Niger and by the range in elevation from 1187 m in Kisanga, Zaire to 0 m in Abidjan, Ivory Coast.

Data Collected

The data which were reported for each plot by the cooperators were the same as that for the ISVEX trials.

Statistical Analysis of Data

The analysis of variance was completed for parameters which are reported according to the same method as for the ISVEX trials. Protein and oil contents were also determined and are reported. A combined analysis was prepared for all of the trial locations where there were five or more trials.

MATERIALS AND METHODS - JOINT INTSOY/SEARCA SITES

Procedures

The results from the joint INTSOY/SEARCA (Southeast Asia Regional Center for Graduate Study and Research in Agriculture) soybean variety trials are included in this publication. The procedures are similar to those followed by INTSOY/IITA cooperators.

Cultivars

SEARCA supplied eight cultivars and INTSOY supplied nine (Table 2). The cultivars Calland, Clark 63, Columbus, Forrest, and Williams were common to all ISVEX and INTSOY/SEARCA sites.

Experiment Sites

The INTSOY/SEARCA trials were dispatched to about five cooperators in Asia. Usable data were returned from one site.

Data Collected

The data which were reported for each plot by the cooperator were similar to that in the ISVEX trials.

Statistical Analysis of Data

The analysis of variance for parameters is reported according to the same method as the ISVEX trials.

RESULTS AND DISCUSSION - ISVEX SITES

Summary mean values of the parameters observed for single and multiple years and for selected geographical areas are presented in Tables 6 through 53. Individual site values which were obtained during the conduct of the Fourth ISVEX during 1976 are reported in Tables 54 through 204.

Tables with data for individual sites include agronomic, seed, and other descriptive information which identifies the location, environment, and management. Information is also included for the local cultivars which were tested. These tables are arranged by region, country, and site.

Summary tables have been prepared for environmental zones which contain five or more sites. Combined analyses were also prepared for selected geographical regions and countries. Summary tables were prepared for cultivars which were common to trials in 1974, 1975, and 1976 and for cultivars common in 1975 and 1976.

Discussion of results will concentrate on parameters of cultivars and on correlations between parameters which are significantly different. "Environmental zones" as described in Table 3 will be hereinafter referred to simply as "zones."

Yield

A summary of the yield in tropical zones I and IV is presented in Table 6. There were not sufficient sites in zone II to prepare a combined analysis. Comparable yields were obtained in both zones but the ranking of cultivars is considerably different. Davis was the highest yielding cultivar in both zones with 2525 kg/ha in the 15 sites below 500 meters altitude and 2466 kg/ha at the 16 sites located at the same altitude but between 11-20° latitude. The top five yielding cultivars in zone I included Davis followed by Improved Pelican, Forrest, Bragg, and Jupiter. In zone IV, Davis was followed in yield by Calland, Forrest, Cobb, and Williams. There was no significant difference in yield among the top six cultivars in zone IV.

In Tables 32 and 33, two-year and three-year means are presented for zone I. The same six cultivars appeared both years but in a different ranking. Davis and Jupiter were the two highest yielding cultivars in both the two-year and the three-year summaries. For 1975 and 1976, these two varieties were followed by Forrest, Improved Pelican, Williams, and Bossier, whereas, in the three-year mean Improved Pelican moved to third place and was followed by Bossier, Forrest, and Williams. There was less than 10% difference among the top five cultivars.

The combined analysis for Asian sites in zone I is reported in Table 47. Among these twelve sites, Davis was the highest yielding at 2337 kg/ha followed by Forrest, Improved Pelican, Williams, and Bragg. Ten of the zone I sites in Asia were located in Sri Lanka. Again, Davis was the highest yielding cultivar (2726 kg/ha) and Forrest was second, followed by Williams, Bragg, and Bossier, while Improved Pelican dropped to sixth place (Table 50).

The two-year and three-year means for zone IV are reported in Tables 35 and 36, respectively. The cultivar ranks and yields were the same for both summaries except for the absence of Cobb from the three year summary. Davis, Forrest, Bossier, Williams, and Clark 63 made up the top five group.

The combined analyses of yield for zones III, VI, and VII are presented in Table 16. The cultivar Hill moved to first place with 1990 kg/ha for the six sites. Davis and Forrest were second and third ranked in yield while Cobb moved into fourth place, followed by Improved Pelican and Bossier. The rank of yields in zone VI and VII was considerably different from zone III. For the five sites above 1000 m in zone VI, Davis was again first with 3207 kg/ha, but was followed by Essex, Calland, Columbus, and Ransom. For the 16 sites in zone VII, Davis was first with 2371 kg/ha and was followed by Ransom, Bossier, Forrest, and Bragg. The mean grain yield for all cultivars in zone III, VI, and VII was 1535, 2809, and 2101 kg/ha, respectively.

In the two-year mean for zone III shown in Table 34, Davis was the highest yielding followed by Forrest, Bossier, Williams, and Improved Pelican. The 1976 and the two-year mean yields were almost exactly the same. There were not sufficient sites in zone III in 1974 to obtain a combined analysis for that year, so a three-year summary could not be prepared. There were not sufficient sites in zone VI in 1974 or 1975 to prepare a combined analysis.

The two-and three-year means for zone VII are presented in Tables 37 and 38, respectively. The relationship of Davis, followed by Bossier, Forrest, Williams, and Clark 63 was the same for both summaries, but the mean yield over three years was 15 percent lower than the two-year mean.

There were six sites in zone VII in 1976 in Asia and Oceania which could be combined. Williams was the highest yielding cultivar at 1964 kg/ha, followed closely by Davis, Columbus, Forrest, and Clark 63 (Table 49). Williams flowered and matured earlier and did not grow as tall as the other four top varieties, but it was still able to produce a comparable yield. The four sites in Pakistan were combined separately in Table 51.

Ransom produced the highest yield at 2526 kg/ha. There was no significant difference among the top five which included Bragg, Bossier, Davis and Pickett 71.

There were four sites in zone III in Ethiopia which were combined (Table 52). Hill produced the highest yield of 2125 kg/ha, followed closely by Davis. Essex, Forrest and Columbus rounded out the top five yielding varieties in these high altitude (>1000 meter) sites.

There were not sufficient sites in zones VIII and IX to obtain a reliable estimate of yields in a combined analysis.

In zone X there were eight sites which could be combined and these data are reported in Table 25. There was no significant difference among the 12 cultivars represented, but the yield of seven entries exceeded 3000 kg/ha and the yield of the top cultivar, Williams, was 3324 kg/ha.

Among zones where a combined analysis could be prepared, the highest mean yields were obtained in zone X (31-40° latitude, <500 m altitude). However, in zone VI (11-20° latitude, 1000 m altitude), the mean yield of 2809 kg/ha was only 6% less than in zone X. Yields in zones I, IV, and VII exceeded 2000 kg/ha. The highest mean cultivar yield (3324 kg/ha) for combined sites was produced by Williams. Sites near the equator and above 1000 m altitude produced the lowest mean yields.

The highest yield produced by an individual cultivar at any one site was Pickett 71 where 6535 kg/ha were obtained. There was one site which reported a yield higher than 6000 kg/ha; it was Deir Alla, Jordan. Five sites reported yields greater than 5000 kg/ha. There was a total of 15 sites with yields greater than 4000 kg/ha. These included four sites in South America, three sites in Africa, and two sites in Asia.

Days to Flower

These data represent the number of days from emergence to that time when 50% of the plants have flowered. As a particular cultivar is moved into an environment where the day length becomes shorter, the time between emergence and first flowering decreases which means that the plants are smaller both when they flower and when they mature.

There was little difference between mean days to flowering of cultivars with similar maturity when grown at sites in zone I (0 - 10° latitude, 0-500 m) and zone IV (11-20° latitude, 0-500 m) as reported in Table 8. However, there was an increase in days to flowering between zones I and III and between zones IV and VI (Tables 8 and 18). This suggests that temperature change (altitude) affects days to flowering more than does day length (latitude) at latitudes less than 20°.

Williams, Calland, Clark 63, and Woodworth were all among the earliest flowering cultivars in zones I, III, IV, VI, and VII. Jupiter and Improved Pelican were the latest to flower. A group which was moderately late included Davis, Bossier, Cobb, Bragg, Forrest and Hill.

Mean days to flower of cultivars grown in zone X (31-40° latitude, 0-500 m altitude) are reported in Table 25. The mean for all cultivars (37 days) was only 4-8 days later than zones I, IV, and VI, but 5-15 days earlier than zones III and VII. The earlier group included Hark, Steele, Corsoy, Wells, Beeson, and Amsoy 71; whereas, the later group included Woodworth, Clark 63, Williams, Calland, and Cutler 71.

Two-year and three-year means for cultivars in zone I (Tables 32 and 33), zone IV (Tables 35 and 36), zone VII (Tables 37 and 38), and X (Table 39) were almost exactly the same as 1976 data. Two-year means for zone III (Table 34) indicate that cultivars matured slightly earlier in 1976.

Days to Harvest

Days to harvest is defined as the time from emergence to the growth stage when 95% of the pods are mature. It is useful to consider not only days to flowering and days to harvest but also the time interval between flowering and maturity. The range in mean days for all cultivars from flowering to maturity among all zones (Tables 9, 19, and 25) was 63-77 days whereas the range from emergence to flowering was 29-52 days and from emergence to maturity was 92-124 days.

The late maturing cultivars in zones I and IV (Table 9) and zones III, VI, and VII (Table 19) included Jupiter and Improved Pelican. Davis, Bragg, Bossier, Cobb, Ransom, Forrest, and Pickett 71 fell into the moderately late group. Williams, Calland, Clark 63, Woodworth, and Hill matured earliest.

In zone X (Table 25), the earlier maturing group included Steele, Hark, Hodgson, Corsoy, Wells, and Woodworth. The later maturing cultivars were Cutler 71, Clark 63, and Calland.

These data for zones I, IV, VII, and X were consistent with two-year means reported in Tables 32, 35, 37, and 39, respectively, and three-year means for zones I, IV, and VII reported in Tables 33, 36, and 38, respectively. However, over the two years, cultivars in zone III were reported to mature slightly later (Table 34) than in 1976.

Nodule Number and Nodule Weight

The number of nodules which form on the roots of soybean plants is an indication of the presence and relative activity of the strains of rhizobia which are present in the soil and those added through the inoculum. Nodule weight is an indication of nodule size as well as quantity. Usually, larger nodules are more active in fixing nitrogen. By taking nodule data at two stages of growth, an estimate of the persistence and effectiveness of the rhizobia strains can be estimated. Observations on nodulation during early growth gives an indication of the efficiency of inoculum added to the soil. Nodule activity during late flowering and early pod fill usually affects yield of beans.

Data on nodule number and weight for ten plants at two stages of plant growth are reported in Tables 40 and 42-46. Correlations between yield and

these parameters have also been included. Nodule number almost doubled from the first to second time of sampling for all zones except III (Table 42), where the number remained almost constant. In zone III, nodule weight decreased by 50%. In other zones, nodule weights increased 3-5 times.

At the early growth stage, nodule number ranged from a low of 55 for Calland in zone VII (Table 45) to a high of 186 for Ransom in zone III. The weight of nodules ranged from 0.27 g for Bragg in zone I (Table 40) to the high of 3.54 g for Bossier in zone III. Correlations with yield are inconsistent except in zones VI (Table 44) and VII where they are positive and significant.

At time of second sampling, the fewest nodules were observed on Woodworth (78) in zone VII and the most on Bragg (307) in zone VI. Nodule weights ranged from a low of 0.98 g on Hill in zone VII to a high of 4.00 g on Davis in zone VI.

Correlations between nodule number and nodule weight were positive in all zones at the second sampling. The highest correlations between nodule number and yield were observed in zones IV (Table 43), VI, and X (Table 46). The highest correlations between nodule weight and yield were found in zones III, VI, and VII.

Plant Height

The tallest cultivars in zones I and IV (Table 10) were Improved Pelican at 74 and 86 cm, respectively, and Jupiter at 68 cm. The mean for all cultivars in those zones was 45 and 48 cm. Davis, Forrest, Bossier and Hill were the shortest in zone I, ranging from 33 to 36 cm. In zone IV, Pickett 71 and Bossier were shortest at 31 and 36 cm. The correlation between yield and plant height (0.48) was positive and significant.

Plants tended to grow taller with an increase in latitude at altitudes below 500 m. Plant height was 45 cm in zone I, 48 cm in zone IV, and 51 cm in zone VII (Table 20). The difference in height between various altitudes within zones is inconsistent. Plants were shorter in zone III (Table 20) than in zone I, but slightly taller in zone VI (Table 20) than in zone IV. The shortest cultivar in zone III was Pickett 71 at 30 cm which grew 36 cm tall in zone VI. Davis grew 40 cm tall in zone III but 66 cm tall in zone VI, where it was the next to the tallest cultivar after Improved Pelican (96 cm). Improved Pelican at 71 cm was also the tallest cultivar in zone III. The range in plant height in zone VI was from 36 cm for Pickett 71 to 96 cm for Improved Pelican.

There was almost a doubling in height of the cultivars between zone VII and zone X (Table 25). The mean for zone X was 85 cm compared to 51 cm for zone VII. The range in height in zone X was from 70 cm for Hodgson to 100 cm for Cutler 71.

The trend in plant height among zones for multi-year means in Tables 32-39 was comparable to 1976 data. In zone I, the three-year mean was 48 cm compared to 1976 data of 45 cm; in zone IV, 42 cm compared to 48 cm; in

zone VII, 54 cm compared to 51 cm; and, in zone X, 81 cm compared to 85 cm.

Lodging

The amount of plant lodging is generally closely associated with plant height and with population. In 1976, there was a positive and significant correlation between plant height and lodging. There was very little difference in mean lodging scores for all cultivars among zones I, III, IV, VI, and VII in Tables 11 and 21. However, there were some differences among cultivars within zones. In zone I, Improved Pelican and Jupiter, the tallest cultivars, exhibited the greatest amount of lodging. The same trend carried through zones III, IV, and VI for Improved Pelican. Several cultivars had very low lodging scores. Among these were Davis, Forrest, Bragg, Williams, Bossier, Hill, Ransom, and Pickett 71. In zone X (Table 25), moderate lodging was reported for Amsoy 71, Beeson, Calland, Cutler 71, and Clark 63. Where heavy lodging occurs, lower yields are expected. However, correlations between lodging and yield in the Fourth ISVEX were not highly positive which indicates that lodging was not a serious problem.

Shattering

Where shattering is excessive, yields are expected to be lower. Mean shattering scores for individual and all cultivars within zones were low in zones I, III, IV, VI, and VII (Tables 12 and 22). There was no significant difference between varieties within any of these zones. This same situation occurred also in zone X (Table 25). Therefore, shattering did not appear to be a serious problem among the cultivars tested in any of the zones during 1976.

Pods Per Plant and Seed Weight

The number of pods produced per plant and the weight of a given number of seeds are both parameters which are usually correlated with grain yield. Mean numbers of pods per plant along with the correlation of this parameter with other observations are presented in Tables 40 and 42-46 for zones I, II, IV, VI, VII, and X. There was a positive and significant correlation between yield and pods per plant. However, the mean number of pods per plant was not always directly associated with changes in yield of beans among zones. The lowest number of pods per plant was in zone III with 19.8 where the lowest yield (1535 kg/ha) was obtained. However, the highest mean yield for all cultivars (2809 kg/ha) was obtained in zone VI where the number of pods per plant was 21.7. In zone I there were 23.5 pods per plant with a yield of 2271 kg/ha; in zone VII, 25.0 pods per plant with a yield of 2101 kg/ha; and in zone IV, 26.4 pods per plant with a yield of 2113 kg/ha.

The association of pods per plant and plant height is more highly correlated than is the relationship between pods and yield except in zone X

(Table 46). Yield and pods per plant were less highly correlated in zone X than in other zones also.

Yield and 100 seed weight were highly and positively correlated except in zone III (Table 42). The weight of 100 seeds ranged from 15.5 g in zone VII to 21.8 g in zone III (Tables 13, 23, and 25). In zone I, the range in seed weight was from 14.4 g for Improved Pelican to 18.7 g for Davis which had the highest yield. In zone IV, the range in weight was from 12.8 g for Improved Pelican to 18.7 g for Williams but Improved Pelican had a slightly higher yield than Williams. Cultivars had higher mean seed weight in zone III than in other zones; the range was from 16.1 g for the cultivar Forrest to 30.9 g for Ransom. However, the yields were lower in zone III than in any other zone. The lowest seed weight was obtained in zone VI with Improved Pelican (16.0 g) and the highest with Calland (22.2g). The highest yield in this zone was obtained with Davis which had a seed weight of 21.3 g. In zone VII, the range was from 13.5 g for the cultivar Forrest to 17.2 g for Calland. The highest yielding variety Davis had a seed weight of 16.1 g.

The cultivars planted in zone X had seed weights comparable to those of cultivars planted in zones I through IX. Wells had the lowest seed weight of 16.2 g and the top yielding variety Williams had a seed weight of 19.3 g. When compared among different environmental zones, Williams had a seed weight of 18.4 g in zone I, 18.9 g in zone III, 18.7 g in zone IV, 20.7 g in zone VI, and 16.4 g in zone VII.

Seed Quality

The estimate of seed quality was obtained from a visual rating where a score of 1 indicated the best quality and 5 the poorest quality. Mean seed quality scores for environmental zones I, III, IV, VI, VII, and X are presented in Tables 14, 24, and 25. The best seed quality score was reported for cultivars from environmental zone I which is below 500 m in altitude and near the equator. Average quality scores are reported for environmental zones VI, VII, and X. The lowest quality seed was observed in the 13 sites in zone IV which is below 500 m altitude and between 11 and 20° latitude.

In zone I the best quality seed was reported for Improved Pelican and Davis. Bragg, Williams, Clark 63, and Hill also received good ratings. In zone IV the best rating was accorded the cultivar Williams which was followed closely in quality by Davis, Improved Pelican, Clark 63, Hill, and Pickett 71. Comparable quality ratings were given to Woodworth, Williams, Bossier, and Hill in zone III. In zone VI, Improved Pelican was given the highest quality rating and Hill, Davis, and Bragg received good quality ratings.

Disease Rating

Cooperators were requested to make observations about incidence and intensity of diseases on plants. However, at many sites, observations were either omitted or incomplete. Therefore, a meaningful summary of disease observations could not be made.

Protein and Oil Content

The relationship of protein and oil content of soybean seeds usually fluctuates inversely. As protein content increases, oil decreases.

Zones I, II, and IV are reported in Table 26. In zone I, the mean for all cultivars was 39.5% with the range from 37.7 to 41.4%. Although Bossier was highest at 41.4% there was little difference among the top five cultivars. The mean oil content for all cultivars was 22.8%; Ransom had the highest content (24.8%).

In zone II, only one site returned seed for analysis. Calland and Essex had the highest protein content at 44.5 and 44.4%, respectively. Ransom and Williams were higher than the other entries in oil content.

In zone IV, Bossier and Columbus contained the highest protein content of 44.7 and 43.1%, respectively. Ransom and Woodworth had the highest oil content.

The two zones with the highest mean protein content for all cultivars were III and VIII. The mean protein in zone III (Table 28) was 43.2% with a range of 41.3-45.5%. The highest three cultivars include Improved Pelican, Bossier and Williams. The mean oil content was lowest in zones III (20.1%) and IX (18.6%). Improved Pelican and Hill contained the lowest oil content (19.1%) and Cobb had the highest (20.8%) in zone III.

In zone V (Table 28) with only one site reporting, Jupiter contained the highest protein content (43.9%) and Cobb the highest oil (24.9%).

In zone VI (Table 28), the top four cultivars in protein content included Improved Pelican (42.5%), Essex and Bossier (42.1%), and Columbus (42.0%). The highest oil content was produced by Ransom (23.3%).

The protein content of cultivars in zones VII and VIII were comparable (Table 29). Bossier, Cutler 71, Bragg, and Calland were the highest four in zone VII whereas Calland, Bragg, Cutler 71, and Williams were the top group in zone VIII. The mean for all cultivars was higher in zone VIII (43.2%) than in VII (41.5%). The reverse relationship was observed in oil content with 20.5% in zone VIII compared to 22.2% for zone VII.

Data were available for only two sites in zone IX (Table 29). Clark 63 produced the highest protein (41.9%) and Woodworth, Wells, and Beeson tied for highest oil (19.6%).

Only 2.9% in protein content separated the highest cultivar Columbus (41.7%) from the lowest Amsoy 71 (38.8%) in zone X. Oil content was similar in uniformity as the range was from 21.9% for Williams to 20.4% for Columbus.

Only one site each returned seeds for analysis in zones XI and XII (Table 30). In zone XI, Columbus had the highest protein content (43.4%) and Wells the highest oil content (21.2%). In zone XII, Steele produced the highest protein (43.7%) and Hodgson the highest oil (23.4%).

There were data available for six common cultivars among the three sites which returned seed for analysis in zone XIII (Table 31). The grand mean for protein was 40.2% with Wells highest at 42.8%. There was very little variation in oil content except for Wells (19.3%) which had the lowest oil content. The grand mean was 20.0% and Clark 63 had the highest content (20.7%).

Yield of Local Cultivars

As discussed earlier, cooperators were encouraged to substitute one or two local cultivars for INTSOY supplied entries. Cooperators substituted one cultivar at 27 sites and two at 26 sites. Of these 53 sites, the yield of a local entry exceeded that of the other ISVEX cultivars at only nine sites.

The highest yield obtained with any substituted cultivar (3196 kg/ha), was reported at Apatzingan, Mexico with the entry R.A.O. The grand mean of all entries at Apatzingan, Mexico was 2102 kg/ha. There was no significant difference at 5% among the next nine cultivars which included Jupiter, Davis, Hampton 266A, Cobb, Improved Pelican, Columbus, Tracy, Bossier, and Calland. The entry PB-1 yielded 2955 kg/ha at Puttalam, Sri Lanka, but there was no significant difference in the top four entries which also included, in order, Forrest, Hill, and SJ-2 (another substituted cultivar). The third highest was Visoja which yielded 2836 kg/ha at Caacupe, Paraguay. Fourth, fifth, and sixth highest were Loppa (2605 kg/ha) at Tandojam, Pakistan; PB-1 (2563 kg/ha) at Alutharama, Sri Lanka; and Manaus-1 (2217 kg/ha) at Manaus, Brazil, respectively.

Other substitute cultivars which yielded higher than ISVEX entries included Ogden, 43s, and Orba.

RESULTS AND DISCUSSION - JOINT INTSOY/IITA SITES

The joint INTSOY/IITA trial was difficult to coordinate because the requests for and dispatch of cultivars were received and forwarded from two widely separated institutions--INTSOY and IITA. Nonetheless, through close and careful communication, many cooperators received trials and returned useful data.

There were 25 sites which conducted the trial and 19 sites which returned usable data. The highest mean yield of 3494 kg/ha was obtained at Maradi, Niger. The highest yield for any cultivar was 4438 kg/ha with Davis, also at the Maradi site.

Selected agronomic characteristics of sites which could be combined are reported in Table 15; protein and oil content are reported in Table 27; and individual sites in Tables 55, 56, 73, 74, 75, 76, 81, 83, 86, 90, 91, 93, 95, 98, and 102.

Agronomic Characteristics

The combined analysis reported in Table 15 contains data from six sites in zone I (0-10° latitude, 0-500 m altitude). Davis and the IITA cultivar TGx 13-3-2644 were clearly first and second in yield and in rank by yield

across locations. Although there was no significant difference among the 15 entries, there was a 30% difference between the yields of the top five and the lowest three cultivars. The rank of INTSOY entries Davis, Jupiter, Williams, Cobb, Clark 63, and Bossier can be compared to the ranking reported for ISVEX sites in zone I in Table 6 where the ranking was Davis, Williams, Jupiter, Bossier, Clark 63, and Cobb. The mean of the top nine in the INTSOY/IITA trial was 2002 kg/ha compared to the mean for ISVEX sites in zone I of 2271 kg/ha. Five of the eight IITA cultivars were ranked among the top seven entries.

Mean days from emergence to flowering and from emergence to maturity are comparable between the INTSOY/IITA group and the ISVEX entries reported in Tables 8 and 9, respectively. The highest yielding IITA cultivars were among the latest to flower and to mature. The other IITA entries were moderately late.

The mean height of INTSOY/IITA cultivars was greater than the ISVEX cultivars which can be attributed to the height of IITA entries which averaged 56 cm compared to Improved Pelican at 67 cm and the other INTSOY entries at 39 cm.

There was a strong positive correlation between yield and root nodule weight and also nodule number. The highest correlation (0.72) within any zone was reported for this trial between yield and nodule weight at the second sampling.

Cooperators reported more lodging for all entries in the INTSOY/IITA trial. The worst lodged was TGM 249-4-b followed by Jupiter, TGM 220-1-2205, and TGx 13-3-2644. The least lodging was reported for Cobb, Bossier, and Davis.

Only one cultivar exhibited moderate shattering (TGM 210-1-2363). There was no real difference or shattering problem among the other 14 entries.

The seed weight per 100 seeds was 16.4 g compared to 17.0 g for ISVEX entries (Table 13). Williams had the largest seed at 20.0 g. A group of four cultivars had seed weighing from 18.0 to 18.9 g. These included Davis, Jupiter, Clark 63, and Bossier. IITA cultivars produced seed weighing from 12.7 to 16.6 g and except for Improved Pelican (13.8 g), most were smaller-seeded than ISVEX cultivars. There was a strong positive correlation between seed size and yield (Table 41).

The best quality seed was produced by TGM 294-4-2371 and TGx 66-5100. These were followed by a group of five cultivars of good quality--Davis, TGx 13-3-2644, TGM 256-1-b, Improved Pelican, and TGM 249-4-b. The group with the next best quality were TGM 210-1-2363, Williams, Cobb, and TGM 255-2-4341. Jupiter had the poorest rating of 2.5; Clark 63 and TGM 220-1-2205 were slightly better in quality.

Protein and Oil

The protein content of two IITA cultivars, TGM 294-4-2371 and TGM 256-1-b was 47.5 and 47.1%, respectively. This was higher than other entries at the six INTSOY/IITA sites and also greater than any other zone or cultivar mean from the ISVEX sites. The mean for all cultivars was also higher than the highest ISVEX zone.

Oil content ranged from a high of 24.4% for Cobb to a low of 19.2% for TGm 294-4-2371.

RESULTS AND DISCUSSION - JOINT INTSOY/SEARCA SITES

Data were available from only one site from the joint INTSOY/SEARCA soybean variety experiment. This trial was conducted at Sukothai in Thailand. The coefficient of variation was high for these data but Calland, Columbus, Forrest, and Multivar 80 had the highest yields which were 2861, 2692, 2632, and 2543 kg/ha, respectively (Table 145).

Those cultivars with medium days to flowering and to maturity had the highest yield. The latest flowering and maturing entries, SJ-4 and Tainung 4 ranked 10th and 11th. Altona and Multivar 80 tied for earliest flowering (27 days) and were also the earliest maturing.

The tallest cultivar Kaohsiung E-32 (118 cm) was lowest in yield and along with Orba (65 cm) was severely lodged. The only other badly lodged cultivar was TK-5. Altona and Forrest were the shortest entries. The mean for all entries was 64 cm.

Calland and Columbus had the largest seed and Orba and Kaohsiung E-32, the smallest. There was little difference in seed quality except for Amsoy 71 and TK-5 which were given very good ratings.

SUMMARY

A large group of soybean cultivars of diverse genetic composition was evaluated under a wide range of environmental conditions in the Fourth International Soybean Variety Experiment (ISVEX) during 1976. Yields of 2000-4000 kg/ha of good quality seeds were consistently obtained under tropical and sub-tropical conditions.

Change in altitude (day- and nighttime temperature) had more effect on plant height and on days to flowering and maturity than did change in latitude (day length). Cultivars in groups 00 - VIII flowered earlier and did not grow as tall when grown at sites closer to the equator. Later maturing cultivars frequently, but not always, outyielded early maturing types. This presents problems in developing high-yielding cultivars which also mature early, since these types are frequently required for intensive cropping systems.

Lodging and shattering were not serious problems with the cultivars evaluated. Grain quality decreased under conditions of high humidity and temperature, especially near harvest time.

The effectiveness of rhizobia, particularly when related to yield, was difficult to evaluate which suggests problems of adaptability and persistence of strains.

Cultivars introduced through ISVEX consistently outyielded local entries. Multi-year summaries indicated the superiority of Davis, Forrest, Bossier, Williams, Clark 63, Cobb, Improved Pelican, and Jupiter under tropical conditions. The potential of Calland, Columbus, Essex, Hill, Ransom, and Pickett 71 may be reflected in future multi-year summaries.

The protein content of the same cultivars was as high or higher in tropical environments as in temperate conditions.

Table 1: Pedigree of soybean cultivars grown in the fourth International Soybean Variety Evaluation Experiment (ISVEX) during 1976

Cultivar	Maturity Group	Pedigree
Altona	00	P.I. 194654 x Flambeau
Amsoy 71	II	Amsoy ⁸ x (Blackhawk x Harosoy)
Beeson	II	C1253 x Kent
Bossier	VII	Selection from Lee
Bragg	VII	Jackson x D49-2491
Calland	III	C1253 x Kent
Ces-16-17		
Clark 63	IV	(Clark ⁷ x CNS) x (Clark ⁶ x Blackhawk)
Cobb	VIII	F57-735 x D58-3358
Columbus	IV	C1069 x Clark
Corsoy	II	Harosoy x Capital
Cutler 71	IV	Cutler ⁴ x Kent
Davis	VI	[Roanoke x (Ogden x CNS)] x (Ralsoy x Ogden)
Essex	V	Lee x S5-7075
Forrest	V	Dyer x Bragg
Hark	I	Hawkeye x Harosoy
Hill	V	(Dunfield x Haberlandt) x Sib of Lee
Hodgson	I	Corsoy x M372
Imp. Pelican	VIII	Tanloxi x P.I. 60406
Jupiter	IX	D49-2491 x P.I. 240664
Kaohsiung E-32		
Lincoln	III	Mandarin x Manchu
Multivar 80		
Orba		
Pickett 71	VI	Pickett x P.R. Resistant Lee
Ransom	VII	(N55-5931 x N55-3818) x D56-1185
SJ-1		
Steele	I	Blackhawk x Harosoy
Swift	0	[(Lincoln ² x Richland) x Korean] x (Renville x Capital)
Tainung 4		
TGm 220-1-2205		Selection from Lee 68 x (Hill x PI 274,454)
TGm 210-1-2363		Selection from Lee 68 x (Hill x PI 274,454)
TGm 255-2-4341		Selection from D66-8666 x (Hill x PI 274,454)
TGm 249-4-b		Selection from D66-8666 x (Hill x PI 274,454)
TGm 294-4-2371		Selection from 203-6-1-m(7)
TGm 256-1-b		Selection from 066-8666 x (Hill x PI 274,454)
TGx 66-5100		Selection - parentage unknown
TGx 13-3-2644		Selection - parentage unknown
TK-5		
Wells	II	C1266R x C1253
Williams	III	Wayne x L57-0034
Woodworth	III	Wayne x L57-0034

Table 2: *Distribution of cultivars in the fourth ISVEX during 1976*

Cultivar	Distribution by environmental zone					Joint INTSOY/ IITA Trials	Joint INTSOY/ SEARCA Trials
	I, II, & III	IV	V, VI, & VII	VIII, IX, X, & XI	XII	Temperate	
Bossier	X	X	X	X		X	
Bragg	X	X	X	X			
Calland	X	X	X	X	X	X	X
Clark 63	X	X	X	X	X	X	X
Cobb	X	X	X	X			
Columbus	X	X	X	X	X	X	X
Davis	X	X	X	X			
Essex	X		X	X	X		
Forrest	X	X	X	X	X	X	X
Hill	X	X	X	X	X		
Imp. Pelican	X	X	X			X	
Jupiter	X	X				X	
Pickett 71	X	X	X	X			
Ransom	X	X	X	X			
Williams	X	X	X	X	X	X	X
Woodworth		X	X	X	X	X	
Cutler 71	X	X	X	X	X	X	
Beeson				X	X	X	X
Wells				X	X	X	
Amsoy				X	X	X	X
Corsoy				X	X	X	
Hark				X	X	X	
Hodgson				X	X	X	
Steele				X	X	X	
Altona					X	X	X
Swift						X	X

Table 2 (Cont'd): Distribution of cultivars in the fourth ISVEX during 1976

Cultivar	Joint INTSOY/ IITA Trials	Joint INTSOY/ SEARCA Trials
TGm 220-1-2205	X	
TGm 210-1-2365	X	
TGm 255-2-4341	X	
TGm 249-4-B	X	
TGm 294-4-2371	X	
TGm 256-1-B	X	
TGx 66-5100	X	
TGx 13-3-2644	X	
CES-16-17		X
Kaohsiung E-32		X
Lincoln		X
Multivar 80		X
Orba		X
SJ-1		X
Tainung 4		X
TK-5		X

Table 3: Description of environmental zones in the fourth International Soybean Variety Evaluation Experiment

Zone	Latitude	Elevation (m)	Number of sites
I	$\leq 10^{\circ}59'$ ^{1/}	≤ 500	39
II	$\leq 10^{\circ}59'$	501 - 1,000	6
III	$\leq 10^{\circ}59'$	$> 1,000$ ^{2/}	13
IV	$11^{\circ} - 20^{\circ}59'$	≤ 500	24
V	$11^{\circ} - 20^{\circ}59'$	501 - 1,000	1
VI	$11^{\circ} - 20^{\circ}59'$	$> 1,000$	7
VII	$21^{\circ} - 30^{\circ}59'$	≤ 500	20
VIII	$21^{\circ} - 30^{\circ}59'$	501 - 1,000	6
IX	$21^{\circ} - 30^{\circ}59'$	$> 1,000$	3
X	$31^{\circ} - 40^{\circ}59'$	≤ 500	15
XI	$31^{\circ} - 40^{\circ}59'$	501 - 1,000	5
XII	$31^{\circ} - 40^{\circ}59'$	$> 1,000$	2
XIII	$\geq 41^{\circ}$	≥ 0	5

^{1/} \leq = less than or equal to

^{2/} $>$ = greater than

Table 4: Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY

Region	Country	Site	Latitude	Elevation (m)
Africa	Algeria	Khemis-Miliana	36° 15'N	289
	Benin	Parakou	9° 58'N	358
	Central African Empire	Bossangoa	6° 26'N	521
	Egypt	Bahteem	30° N	24
		Seds	29° N	41
	Ethiopia	Awassa	7° N	1700
		Dedessa	9° 08'N	1220
		Jimma	7° 46'N	1756
		Leku	6° 45'N	1820
	Gabon	Ntoun	0° 20'N	18
		(2 trials)		
	Ghana	Kumasi	6° 41'N	270
		Legon Farm	5° 39'N	60
	Ivory Coast	Dekokaha	9° 05'N	350
		Odienne	9° 06'N	400
		Sirasso	9° 04'N	350
	Lesotho	Maseru	29° 21'S	1550
	Niger	Maradi	13° 28'N	351
	Rhodesia	Salisbury	17° 48'S	1506
	Somalia	Afgoi	2° 08'N	13
	Sudan	Wau	7° 36'N	450
	Swaziland	Big Bend	26° 52'S	150
	Tanzania	Ilonga	6° 46'S	503
	Togo	Davie	6° 26'N	95
		Kitangbao	9° 16'N	340
	Uganda	Kampala	0° 28'N	1160
	Upper Volta	Bobo-Dioulasso	11° 25'N	250
	Zaire	Kisanga	11° 44'S	1187
	Zambia	Kabwe	14° 12'S	1207
		Magoye	16° 01'S	1067
		(3 trials)		
		Mulfulira	12° 37'S	1265
Asia	Bangladesh	Joydevpur	24° N	8
		Kashimpur	24° N	8
		Mymensingh	24° N	18
		Pabna	24° 03'N	22
	India	Jabalpur	23° 10'N	393
		Pantnagar	29° 05'N	243
	Indonesia	Malang	8° 25'S	335
		Medan	3° 35'N	25
	Nepal	Khairanitar Farm	28° N	1000
		Khumaltar	27° 40'N	1360

Table 4 (cont'd): Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY

Region	Country	Site	Latitude	Elevation (m)
Asia (cont'd)	Pakistan	Islamabad	34° N	526
		Kotdiji	27° N	18
		(2 trials)		
		Lahore	31° 30'N	230
		Mingora	36° 46'N	904
		Mirwah	25° N	20
		Swat	36° 46'N	904
		Tandojam	25° N	63
		Tandojam	25° N	2
		Umerkot	25° N	29
	Philippines	Los Banos	14° 10'N	15
	Sri Lanka	Alutharama	7° 30'N	266
		(2 trials)		
		Angunukolapalessa	6° N	30
		Bandarawela	6° 51'N	1220
		Gannoruwa	7° 15'N	457
		(3 trials)		
		Kilinochchi	9° 02'N	9
		(2 trials)		
		Maha Illuppallama	8° 05'N	138
		(2 trials)		
		Okkampitiya	6° 45'N	184
		Puttalam	8° 15'N	24
		Thirunelvely	10° N	1
	Thailand	Khon Kaen	16° 36'N	180
		Saraburi	14° 47'N	100
		Suwan Farm	14° 30'N	367
Europe	Hungary	Godollo	47° N	
		Szarvas	46° 51'N	84
	Italy	Sassari, Sardinia	40° 43'N	80
		Ussana, Sardinia	39° 25'N	89
	Poland	Radzikow	52° 13'N	90
	Portugal	Porto	41° 20'N	29
	Spain	Seville	37° 30'N	20
	Yugoslavia	Novi Sad	45° 20'N	80
Mesoamerica	Bahamas	San Andros	24° 57'N	2
	Dominican Republic	San Cristobal	18° 30'N	43
		Jamaica	18° N	2
	Mexico	Caymanas	18° N	
		Apatzingan	19° N	337
		(2 trials)		
	Nicaragua	Managua	12° 33'N	60
		Posoltega	12° 33'N	60
	Puerto Rico	Isabela	18° 28'N	140

Table 4 (cont'd): Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY

Region	Country	Site	Latitude	Elevation (m)
Middle East	Iran	Karaj	37° 47'N	1300
		Safiabad	32° 16'N	81
	Israel	Bet-Dagan (2 trials)	32° N	80
		Deir Alla	35° 12'N	-68
	Saudi Arabia	Wadi Jizan	17° 55'N	83
North America	United States	Urbana, Illinois	40° 07'N	226
Oceania	New Caledonia	Bourail	21° S	0
	New Hebrides	Port Vila	17° 45'S	15
	Tahiti	Papeete	17° 30'S	2
	United States	Kapaa, Hawaii	21° N	168
		(2 trials)		
South America	Argentina	Parana	31° 50'S	111
	Bolivia	Santa Cruz	18° 39'S	389
		Santa Cruz	17° 14'S	320
		Janauba	15° S	510
	Chile	La Platina	33° 27'S	625
	Colombia	Palmira	3° 32'N	1008
	Ecuador	Boliche	2° 21'S	17
		Pallatanga	1° 59'S	1
		Portoviejo	1° 04'S	30
		Pichilingue	1° 05'S	73
		Caacupe	25° 24'S	228
		La Vina	12° 05'S	251
		Lima	12° 05'S	238
	Uruguay	Tacuarembó	31° 42'S	120
		Treinta y Tres	33° 18'S	31

Table 5: *List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
AFRICA	Algeria	Officer-in-Charge	Station Regionale I.D.C.I. Khemis-Miliana El-Asnam, ALGERIA
	Benin	Director	Institut de Recherches Agronomiques Tropicales B.P. 155 Parakou, BENIN
		Mr. E. Limburg	Action Rurale
		Mr. E. Fado	B.P. 102 Save, BENIN
	Botswana	Mr. P. G. Lee	Agricultural Research Station - Content Farm P/bag 0033 Gaborone, BOTSWANA
		Ms. Lynn A. Miller	Mahalapye Rural Training Center Box 300 Mahalapye, BOTSWANA
	Burundi	Mr. J. De Brabandere	Buhoro Station B.P. 795 Bujumbura, BURUNDI
		Mr. De Marcim	ISABU SEMS/IMBO B.P. 2393 Bujumbura, BURUNDI
	Cameroon	Mr. Jean Praquin	I.C.V.T. Santchou, CAMEROON
	Central African Empire	Mr. Miguel L. Carmen	FAO Expert Centre de Multiplication de Soumbe B.P. 39 Bossangoa, CENTRAL AFRICAN EMPIRE
	Congo	Ing. Ivetic Obrad	Expert de la FAO Agricultural Vulgarisation Lekana, B.P. 3 Brazzaville, CONGO

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
AFRICA (cont'd)	Egypt	Dr. Ali Abdel Aziz	Bahteem Research Station Bahteem, EGYPT
		Dr. Samia Ali Mahmoud	60 A Mohamed Farid St. Abdin, Cairo, EGYPT
	Ethiopia	Mr. Teklemariam Haile Mr. Tadesse	Institute of Agricultural Research Bako Research Station P.O. Box 3 Bako, ETHIOPIA
		Mr. Demissie Mitiku Mr. Titos Legatos	Leku c/o Awassa P.O. Box 80 Sidamo Adm. Region ETHIOPIA
		Mr. G. M. Shekour Mr. G. E. Ande	Jimma Agricultural Institute Box 192 Jimma, ETHIOPIA
		Mr. J. van Amerongen Mr. G. Van de Plas	Project CIAM B.P. 5 Ntoun, GABON
	Ghana	Mr. R. B. Dadson	Legon Farm University of Ghana Legon, GHANA
		Mr. Hector Mercer- Quarshie	Crops Research Institute Box 3785 Kumasi, GHANA
	Ivory Coast	Dr. A. D. Assa	Faculte des Sciences Universite National de Cote d'Ivoire B. P. 4322 Abidjan, IVORY COAST
	Lesotho	Mr. Chen-Kien Chu	P.O. Box 789 Maseru, LESOTHO
	Mali	Mr. M. Crambade	Institut de Recherches Pour Les Huiles et Oleagineux B.P. 16 Koulikoro, MALI

Table 5 (Cont'd): *List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
AFRICA (cont'd)	Niger	Director	Institut de Recherches Agronomiques Tropicales Station de Tarna B.P. 240 Maradi, NIGER
	Nigeria	Dr. D. Nangju Mr. J. P. Singh	International Institute of Tropical Agriculture Oyo Road, P.M.B. 5320 Ibadan, NIGERIA
	Rhodesia	Dr. J. R. Tattersfield Mr. J. S. Tichagwa	Salisbury Research Station Box 8100 Causeway Salisbury, RHODESIA
	Somalia	Mr. M. A. Arkow Mr. S. J. Osoble Mr. A. H. Maio	Agricultural Research Institute Afgoi, SOMALIA
	Sudan	Mr. D. Hopkinson Mr. H.L.M. van Wissen	Halima Experimental Station Ministry of Agriculture Wau, SUDAN
	Swaziland	Mrs. Janet Cumberland	Crop Agronomist Malkerns Research Station P.O. Box 4 Malkerns, SWAZILAND
	Tanzania	Mr. M.E.T. Mmbaga	A.R.I. - Ilonga Private Bag Kilosa, TANZANIA
		Mr. A. J. Carpenter	Kizimbani, Box 159, Zanzibar Zanzibar, TANZANIA
	Togo	Mr. J. Marquette	La Chef de la Mission Institut de Recherches Agronomiques Tropicales au Togo B.P. 1163 Lome, TOGO
	Uganda	Mr. C. K. Bulungu	Makerere University Farm P.O. Box 7062 Kampala, UGANDA
	Upper Volta	Mr. C. I. Korteweg	CERCI B.P. 130 BOBO-DIOULASSO, UPPER VOLTA

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
AFRICA (cont'd)	Zaire	Mr. Thomas G. Hart	Programme National Mais B.P. 3673 Lubumbashi, ZAIRE
	Zambia	Mr. F. Javaheri	Soybean Coordinator Magoye Regional Research Station P.O. Box 11 Magoye, ZAMBIA
		Mr. A.A.V. Sarmezey	Copperbelt Regional Research Station P.O. Box 668 Mufulira, ZAMBIA
		Mr. N. S. Lipovac	Kabwe Regional Research Station P.O. Box 908 Kabwe, ZAMBIA
	Bangladesh	Dr. Peter R. Hobbs Mr. Abdus Sobhan Mr. M. A. Hoque Mr. N. I. Miah	Bangladesh Rice Research Institute P.O. Box 911 Joydevpur, BANGLADESH
		Dr. A. J. Miah Mr. B. H. Sikder Mr. A. Mansur	Institute of Nuclear Agriculture P.O. Box 4 Mymensingh, BANGLADESH
		Mr. M.A.H. Sarker Mr. E. Nafziger	Agricultural Research Substation Pabna, BANGLADESH
	India	Dr. S. M. Sharma Mr. S. K. Mehta	Dept. of Plant Breeding and Genetics J. N. Krishi Vishwa Vidyalay Jabalpur -4 (M.P.) INDIA
		Dr. B. B. Singh	G. B. Pant University of Agriculture Pantnagar, INDIA
	Indonesia	Mr. Riwanodja Mr. Sumarno	Jambegede Agriculture Station Kepanjen (Malang) East Java, INDONESIA
		Ir. B.O.P. Tampubolon	Fakultas Pertanian, U.S.U. Medan, Sumatra Utara, INDONESIA

Table 5 (Cont'd): List of cooperators participating in the fourth International Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
ASIA (cont'd)	Nepal	Mrs. Meena Panday	Khumaltar Agriculture Farm Khumaltar, G.P.O. Box 404 Kathmandu, NEPAL
		Mr. B. Thapa Mr. M. P. Bharati	Gandaki Agriculture Development Project Khairanitar, NEPAL
	Pakistan	Mr. A. H. Chaudhry Mr. M. A. Jaleel Mr. N. Ahamed Mr. A. H. Soomro	Oilseeds Section Agricultural Research Institute Tandojam, PAKISTAN
		Mr. R. Troedson	Agricultural Project Technical Services Assoc. 23-2 Race Course Road Lahore 3, PAKISTAN
		Mr. P. F. Knowles Mr. M. A. Rana	Pakistan Agricultural Research Station P.O. National Health Laboratories Islamabad, PAKISTAN
		Mr. K. Sheikh Mr. M. I. Soomro	Agricultural Research Sub-station Kotdiji, PAKISTAN
		Mr. Syed Badshah	Tarnab Research Institute Peshawar, PAKISTAN
	Philippines	Mr. Benjamin M. Legaspi Mr. R. R. Matias	Legume Research Project Dept. of Agriculture & Natural Resources Bureau of Plant Industry Economic Garden Los Banos, Laguna 3732, PHILIPPINES
	Sri Lanka	Mr. S. M. Santhirasivam Mr. S. Kandasamy	Agricultural Research Station Alutharama Mahiyangana, SRI LANKA
		Mr. A. Senthinathan Mr. R. Radhakrishnan	Agricultural Research Centre Angunukolapalessa, SRI LANKA
		Mr. L. G. Herat Mr. G. R. Aloysius	Regional Agricultural Research Station Bandarawela, SRI LANKA

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
ASIA (cont'd)	Sri Lanka (cont'd)	Mr. C. D. Dharmasena	Central Agriculture Research Institute, Gannoruwa Peradeniya, SRI LANKA
		Mr. N. Kanaganayagam	Agricultural Research Station Kilinochchi, SRI LANKA
		Miss P.W.S.M. Weerasinghe	Agricultural Research Station Maha Illuppalama, SRI LANKA
		Mr. S. Thirianathan Mr. I. S. Padmasiri	Agricultural Research Station Ilavankulum Puttalam, SRI LANKA
		Mrs. J. S. Selvaratnam Mr. S. Balasunderam Mr. R. Manokaran	Agricultural Research Centre Thirunelvely Jaffna, SRI LANKA
	Thailand	Dr. Prasan Yingchol Mr. Ed Sarobol Mr. J. Verawudh	Division of Agronomy Dept. of Plant Science College of Agriculture Kasetsart University Bangkok, THAILAND
		Dr. Paisan Laosuwan	Khon Kaen University Khon Kaen, THAILAND
		Mr. Waiwat Burantham Mr. Pattawuth Jewtrakool Mr. Prawit Wongsukon	Khun Talae Rubber Research Center Surat Thani, THAILAND
		Dr. Arwooth Na Lampang	Sisumrong Agricultural Experiment Station Sukothai, THAILAND
	Hungary	Dr. Andor Balint	Dept. for Plant Breeding University of Agricultural Sciences Godollo 2103, HUNGARY
		Dr. Elemer Posgay	Research Institute of Irrigation Szarvas, HUNGARY
	Italy	Prof. Guiseppe Rivoira	Instituto di Agronomia Generale e Coltivazioni Erbacee Universita di Sassari Via E. de Nicola Cod. Post. 07100 Sassari, Sardinia, ITALY

Table 5 (Cont'd): *List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
EUROPE (cont'd)	Poland (cont'd)	Dr. J. Szyrmer	Soybean Laboratory of Plant Breeding and Acclimatization Institute Radzikow, POLAND
	Portugal	Mr. Abilio Silva Mr. Duarte S. Sousa Mr. Antonio D. Angelico	Estacao Agraria do Porto R. Restauracao Porto, PORTUGAL
	Spain	Director	La Rinconada Instituto Nacional de Investigaciones Agrarias San Jose de la Rinconada Seville, SPAIN
	Yugoslavia	Dr. Bogdan Belic	Faculty of Agriculture 21.00 Novi Sad, V. Vlahovica 2, YUGOSLAVIA
MESO- AMERICA	Bahamas	Dr. John R. Thompson	BARTAD Project San Andros P.O. Andros Island, BAHAMAS
	Dominican Republic	Mr. J. Diaz Mr. M. Rosario	CNIECA San Cristobal, DOMINICAN REPUBLIC
	Jamaica	Mr. Harold R. Wilson	Caymanas Estates Ltd. Spanish Town, JAMAICA
	Mexico	Mr. Benito Cazares- Enriques	INIA Caeva Apdo. Postal #40 Apatzingan, Mich., MEXICO
	Nicaragua	Mr. Manuel Vanegas	Agricultural Division Research & Development Dept. Central Bank of Nicaragua P.O. Box 2252 Managua, NICARAGUA
	Puerto Rico	Dr. E. H. Paschal II	Isabela, PUERTO RICO
	Trinidad & Tobago	Mr. David C. Martin	Chaguaramas Agricultural Development Project Minsitry of Agriculture, Land & Fisheries Port-of-Spain, TRINIDAD
MIDDLE EAST	Iran	Dr. M. C. Amirshahi Mr. B. Yazdi Samadi	College of Agriculture University of Tehran Karaj, IRAN

Table 5 (Cont'd): *List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
MIDDLE EAST (cont'd)	Iran (cont'd)	Mr. Hesmatollah Pourdavai	Seed & Plant Improvement Program
		Mr. Ghafari	Oilseed Research Seciton
		Mr. Shariati	Karaj, IRAN
		Dr. J. C. Carapetian	College of Agriculture and Animal Husbandry P.O. Box 32 Rezaiyeh, IRAN
	Iraq	Dr. E. K. Vaughan	Safiabad Research Center
		Mr. N. Hodjati	IRAN
		Dr. Salih M. Damirgi	Dept. of Soil Science College of Agriculture Abu-Ghraib, IRAQ
	Israel	Dr. Baruch Retig	Agricultural Research
		Mr. V. Lehrer	Organization The Volcani Center P.O. Box 6 Bet-Dagan, ISRAEL
	Jordan	Mr. N. Katkhuda	Wadi Dulail Research Station
		Mr. M. Khuadare	JORDAN
NORTH AMERIA	Saudi Arabia	Mr. A. Hammuda	Deir Alla Station, JORDAN
		Mr. Mohamed Nour Boukhari	Hakma Station Wadi Jizan Agricultural Development Project Jizan, SAUDI ARABIA
	United States	Mr. Robert Dunker	INTSOY Dept. of Agronomy University of Illinois Urbana, Illinois, U.S.A. 61801
	New Caledonia	Mr. Robert Arrighi	CREA B.P. 37 Bourail, NEW CALEDONIA
	New Hebrides	Mr. B. L. Weightman	Department of Agriculture Tagabe Agricultural Station Port Vila, NEW HEBRIDES
	Tahiti	Mr. Jean-Louis Reboul	Service de l'Economie Rurale
		Mr. Robert Yau-Akui	B.P. 100 Papeete, TAHITI

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
OCEANIA	United States	Mr. Terry Sekioka	Hawaii Agricultural Experiment Station Kapaa, Hawaii, U.S.A. 96746
SOUTH AMERICA	Argentina	Mr. Raul Vicentini	INTA Estacion Experimental Regional Agropecuaria de Parana Casilla Correo 128 3100 Parana, Entre Rios, ARGENTINA
	Bolivia	Mr. Alberto Castillo	Estacion Experimental "A. Gomez" Casilla #1281 Santa Cruz, BOLIVIA
		Mr. Hebert Zurita Mr. Zenon Hunezy Mr. Warner Fisher	Estacion Experimental Agricola de Saavedra Santa Cruz, Casilla 247 Santa Cruz, BOLIVIA
	Brazil	Dr. Fazal Rahman	Research Scientist Instituto Nacional de Pesquisas da Amazonia Caixa Postal 478 - 69.000 Manaus, Amazonas, BRAZIL
	Chile	Mr. Hugo Geldres R.	Instituto de Investigaciones Agropecuarias Estacion Experimental La Platina Santa Rosa 11610 - Paradero 33 Casilla 10, La Granja Santiago, CHILE
	Colombia	Mr. Gilberto Bastidas R.	Programa Leguminosas de Grano y Oleaginosas Anuales Centro Exp. Palmira (ICA) Apartado Aereo 233 Palmira, COLOMBIA
	Ecuador	Ing. Eduardo Calero H.	Oil Seed Program Instituto Nacional de Investigaciones Agropecuarios Estacion Experimental Boliche Apartado No. 7069 Guayaquil, ECUADOR
	Paraguay	Mr. Roberto Casaccia Mr. Oscar Aguilera Mr. Justo Lopez	Instituto Agronomico Nacional Caacupe, PARAGUAY

Table 5 (Cont'd): *List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment*

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
SOUTH AMERICA (cont'd)	Paraguay (cont'd)	Mr. Sinforiano Paniagua S.	Director del C.R.I.A. Ministerio de Agricultura y Ganaderia Capitan-Miranda, PARAGUAY
	Peru	Ing. Cesar A. Maceda	CRIA - II Sub-estacion Experimental Bagua - Apartado 116 Chiclayo, PERU
		Mr. Hugo Soplin V.	National Agriculture University La Vina, PERU
		Ing. Jose Bruno Ing. Rufino Montalvo	Estacion Experimental - La Molina Centro Regional de Investigacion Agropecuarias Apartado 2791 Lima, PERU
	Uruguay	Mr. Luis Amendola	Estacion Exp. del Norte Gral Flores 390 Tacuarembó, URUGUAY
		Mr. Miguel A. Berasain	Estacion Exp. del Este Avda. Brasil 139 Teinta y Tres, URUGUAY

Table 6: Yield of soybean grain in kilograms per hectare of cultivars observed in the fourth International Soybean Variety Experiment (ISVEX) conducted in similar environmental zones (I and IV)

Cultivar	Mean grain yield (kg/ha)	
	15 sites	16 sites
	0-10 ⁰ lat ^{1/}	11-20 ⁰ lat
	0-500 m ^{2/}	0-500 m
Davis	2525 (1) ^{3/}	2466 (1)
Forrest	2399 (2)	2290 (3)
Imp. Pelican	2365 (3)	1857 (12)
Bragg	2306 (4)	2206 (5)
Williams	2246 (5)	2092 (8)
Jupiter	2242 (6)	----
Bossier	2143 (7)	1953 (11)
Clark 63	2117 (8)	2102 (7)
Hill	2093 ^{4/} (9)	1970 (10)
Calland	----	2356 (2)
Cobb	----	2236 (4)
Ransom	----	2193 (6)
Pickett 71	----	2061 (9)
Woodworth	----	1685 (13)
Mean	2271 ^{5/}	2113
LSD (.05)	-NS-	332.8

1/ Range of latitude where trials were planted

2/ Range of elevations where trials were planted

3/ Numbers in parentheses indicate ranking of mean yields

4/ Cultivar omitted at some sites; therefore,
mean values not calculated

5/ LSD not significant at 5% level

Table 7: Mean of the ranks of soybean grain yields of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean rank of grain yields	
	15 sites	16 sites
	0-10 ⁰ lat	11-20 ⁰ lat
	0-500 m	0-500 m
Davis	1	1
Forrest	3	3
Imp. Pelican	2	12
Bragg	4	8
Williams	6	5
Jupiter	5	-
Bossier	7	10
Clark 63	9	7
Hill	8	11
Calland	-	2
Cobb	-	4
Ransom	-	6
Pickett 71	-	9
Woodworth	-	13

Table 8: Days from emergence to first flowering of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean days to flower	
	15 sites	15 sites ^{1/}
	0-10 ⁰ lat	11-20 ⁰ lat
	0-500 m	0-500 m
Davis	30	33
Forrest	29	29
Imp. Pelican	34	39
Bragg	30	29
Williams	27	26
Jupiter	38	--
Bossier	30	28
Clark 63	29	26
Hill	31	31
Calland	--	26
Cobb	--	30
Ransom	--	29
Pickett 71	--	29
Woodworth	--	25
Mean	31	29
LSD (.05)	2.2	2.0

^{1/} Number of sites contributing to mean may vary because data for certain characteristics not recorded at some sites

Table 9: Days from emergence to harvest of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean days to harvest	
	15 sites	16 sites
	0-10 ⁰ lat	11-20 ⁰ lat
	0-500 m	0-500 m
Davis	99	94
Forrest	90	91
Imp. Pelican	98	102
Bragg	95	93
Williams	88	86
Jupiter	115	--
Bossier	94	95
Clark 63	87	87
Hill	91	88
Calland	--	88
Cobb	--	97
Ransom	--	94
Pickett 71	--	92
Woodworth	--	84
Mean	95	92
LSD (.05)	4.1	4.9

Table 10: Height in centimeters of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean plant height (cm)	
	15 sites	16 sites
	0-10 ⁰ lat	11-20 ⁰ lat
	0-500 m	0-500 m
Davis	33	49
Forrest	35	43
Imp. Pelican	74	86
Bragg	37	42
Williams	42	54
Jupiter	68	--
Bossier	33	36
Clark 63	45	55
Hill	36	40
Calland	--	59
Cobb	--	44
Ransom	--	38
Pickett 71	--	31
Woodworth	--	48
Mean	45	48
LSD (.05)	5.8	7.0

Table 11: Amount of lodging of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean lodging score ^{1/}	
	14 sites	16 sites
	0-10° lat	11-20° lat
	0-500 m	0-500 m
Davis	1.1	1.4
Forrest	1.1	1.2
Imp. Pelican	1.9	2.1
Bragg	1.2	1.2
Williams	1.0	1.4
Jupiter	1.8	---
Bossier	1.1	1.2
Clark 63	1.2	1.7
Hill	1.1	1.4
Calland	---	1.6
Cobb	---	1.2
Ransom	---	1.1
Pickett 71	---	1.1
Woodworth	---	1.5
Mean	1.3	1.4
LSD (.05)	0.36	0.35

^{1/} Mean of lodging scores where:

- 1 = all plants erect
- 2 = all leaning slightly or a few down
- 3 = all leaning moderately (45°) or 25-50% down
- 4 = all leaning considerably or 50-80% down
- 5 = all plants down

Table 12: Amount of shattered pods of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean shattering score ^{1/}	
	13 sites	13 sites
	0-10 ⁰ lat	11-20 ⁰ lat
	0-500 m	0-500 m
Davis	1.1	1.2
Forrest	1.0	1.1
Imp. Pelican	1.1	1.1
Bragg	1.0	1.0
Williams	1.0	1.1
Jupiter	1.1	---
Bossier	1.1	1.0
Clark 63	1.1	1.1
Hill	1.0	1.2
Calland	---	1.3
Cobb	---	1.2
Ransom	---	1.0
Pickett 71	---	1.2
Woodworth	---	1.4
Mean	1.1	1.1
LSD (.05)	-NS-	-NS-

^{1/} Mean of shattering scores where:

- 1 = no shattered pods
- 2 = 1-10% shattered
- 3 = 10-25% shattered
- 4 = 25-50% shattered
- 5 = over 50% shattered

Table 13: *Weight of 100 seeds in grams of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

Cultivar	Mean seed weight (g/100 seeds)	
	15 sites	15 sites
	0-10 ⁰ lat	0-10 ⁰ lat
	0-500 m	0-500 m
Davis	18.7	16.4
Forrest	15.0	15.0
Imp. Pelican	14.4	12.8
Bragg	18.3	16.4
Williams	18.4	18.7
Jupiter	18.3	----
Bossier	17.0	16.7
Clark 63	17.0	17.4
Hill	15.9	15.8
Calland	----	19.4
Cobb	----	16.2
Ransom	----	17.4
Pickett 71	----	16.7
Woodworth	----	16.9
Mean	17.0	16.6
LSD (.05)	0.97	1.40

Table 14: *Quality of harvested seed of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)*

Cultivar	Mean seed quality score ^{1/}	
	14 sites	13 sites
	0-10 ^o lat	11-20 ^o lat
	0-500 m	0-500 m
Davis	1.8	2.6
Forrest	2.0	2.9
Imp. Pelican	1.4	2.5
Bragg	1.7	3.0
Williams	1.6	2.4
Jupiter	2.2	---
Bossier	2.0	2.8
Clark 63	1.7	2.6
Hill	1.7	2.5
Calland	---	2.9
Cobb	---	2.8
Ransom	---	3.1
Pickett 71	---	2.6
Woodworth	---	2.8
Mean	1.8	2.7
LSD (.05)	0.47	-NS-

^{1/} Mean of seed quality scores where:

- 1 = very good
- 2 = good
- 3 = fair
- 4 = poor
- 5 = very poor

Table 15: Selected agronomic characteristics of cultivars observed in the first joint INTSOY/IITA Soybean Variety Evaluation Experiment conducted in zone I

Cultivar	Means of observations at 6 sites, 0-10 ⁰ , 0-500m				
	Grain yield (kg/ha)	Rank of grain yield	Days to flower ^{1/}	Days to harvest	
Davis	2138	1	28	92	
TGx 13-3-2644	2136	2	41	106	
Jupiter	2103	3	44	105	
TGm 210-1-2363	2026	5	39	96	
TGm 220-1-2205	1973	7	44	103	
TGm 256-1-b	1942	4	38	98	
TGm 294-4-2371	1928	10	41	103	
Imp. Pelican	1899	8	34	91	
TGm 255-2-4341	1871	6	36	100	
TGm 249-4-b	1859	11	36	101	
Williams	1798	9	26	83	
Cobb	1782	12	28	90	
TGx 66-5100	1699	14	36	98	
Clark 63	1668	13	26	85	
Bossier	1481	15	25	88	
Mean	1887	--	35	96	
LSD (.05)	-NS-	--	6.8	9.2	

^{1/} Mean from 5 sites only

Table 15 (cont'd): Selected agronomic characteristics of cultivars observed in the first INTSOY/IITA Soybean Variety Evaluation Experiment conducted in zone I

Means of observations at 6 sites, 0-10°, 0-500m						
	Plant height (cm)	Lodging score ^{1/}	Shattering score ^{1/}	Seed weight ^{1/} (g/100 seeds)	Seed quality ^{2/} score	
Davis	32	1.4	1.0	18.9	1.5	
TGx 13-3-2644	63	2.3	1.1	16.6	1.6	
Jupiter	58	2.4	1.0	18.3	2.5	
TGm 210-1-2363	51	2.0	2.0	16.0	1.8	
TGm 220-1-2205	44	2.4	1.2	14.0	2.1	
TGm 256-1-b	56	2.0	1.0	13.6	1.6	
TGm 294-4-2371	58	2.0	1.0	15.6	1.3	
Imp. Pelican	67	1.8	0.8	13.8	1.6	
TGm 255-2-4341	54	2.0	1.1	12.7	1.9	
TGm 249-4-b	60	2.7	1.0	15.3	1.6	
Williams	42	2.0	0.8	20.0	1.8	
Cobb	33	1.1	1.2	19.4	1.8	
TGx 66-5100	61	2.0	1.0	14.9	1.3	
Clark 63	43	2.1	0.9	18.3	2.3	
Bossier	27	1.3	0.8	18.0	2.2	
Mean	50	2.0	1.1	16.4	1.8	
LSD (.05)	10.8	-NS-	0.52	1.48	-NS-	

^{1/} Mean from 5 sites only

^{2/} Mean from 3 sites only

Table 16: Yield of soybean grain in kilograms per hectare of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean grain yield (kg/ha)					
	6 sites		5 sites		16 sites	
	0-10 ⁰ lat		11-20 ⁰ lat		21-30 ⁰ lat	
	> 1000 m		> 1000 m		0-500 m	
Hill	1990	(1)	2776	(9)	1942	(9)
Davis	1934	(2)	3207	(1)	2371	(1)
Forrest	1867	(3)	2744	(10)	2227	(4)
Cobb	1697	(4)	3010	(6)	----	
Imp. Pelican	1661	(5)	2518	(11)	----	
Bossier	1616	(6)	2839	(8)	2306	(3)
Pickett 71	1590	(7)	2493	(12)	2101	(6)
Ransom	1458	(8)	3061	(5)	2358	(2)
Williams	1448	(9)	2467	(14)	2030	(7)
Calland	1340	(10)	3114	(3)	1938	(10)
Clark 63	1174	(11)	2471	(13)	1997	(8)
Woodworth	1128	(12)	2272	(15)	1634	(11)
Bragg	1057	(13)	2933	(7)	2204	(5)
Essex	----		3122	(2)	----	
Columbus	----		3111	(4)	----	
Mean	1535		2809		2101	
LSD (.05)	378.2		447.6		313.3	

Table 17: Mean of the ranks of soybean grain yields of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean rank of grain yields		
	6 sites	5 sites	16 sites
	0-10 ⁰ lat	11-20 ⁰ lat	21-30 ⁰ lat
	> 1000 m	> 1000 m	0-500 m
Hill	1	10	9
Davis	2	1	3
Forrest	3	9	4
Cobb	5	7	-
Imp. Pelican	4	11	-
Bossier	6	8	2
Pickett 71	7	13	6
Ransom	9	5	1
Williams	8	14	7
Calland	10	3	10
Clark 63	11	12	8
Woodworth	12	15	11
Bragg	13	6	5
Essex	-	2	-
Columbus	-	4	-

Table 18: Days from emergence to first flowering of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean days to flower		
	5 sites	5 sites	13 sites
	0-10 ⁰ lat	11-20 ⁰ lat	21-30 ⁰ lat
	> 1000 m	> 1000 m	0-500 m
Hill	58	42	46
Davis	63	43	47
Forrest	53	36	45
Cobb	58	38	--
Imp. Pelican	74	52	--
Bossier	49	32	47
Pickett 71	50	33	46
Ransom	46	30	45
Williams	42	25	34
Calland	41	25	34
Clark 63	41	25	35
Woodworth	42	25	33
Bragg	52	31	46
Essex	--	31	--
Columbus	--	26	--
Mean	52	33	42
LSD (.05)	9.6	3.6	4.8

Table 19: Days from emergence to harvest of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean days to harvest		
	5 sites	5 sites	15 sites
	0-10 ⁰ lat	11-20 ⁰ lat	21-30 ⁰ lat
	> 1000 m	> 1000 m	0-500 m
Hill	126	102	101
Davis	130	109	113
Forrest	129	104	106
Cobb	128	108	---
Imp. Pelican	139	115	---
Bossier	124	105	117
Pickett 71	122	99	115
Ransom	124	104	117
Williams	113	88	94
Calland	123	97	98
Clark 63	119	90	97
Woodworth	113	83	89
Bragg	124	100	116
Essex	---	104	---
Columbus	---	97	---
Mean	124	100	106
LSD (.05)	9.8	4.5	6.6

Table 20: Height in centimeters of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean plant height (cm)		
	6 sites	5 sites	15 sites
	0-10 ⁰ lat	11-20 ⁰ lat	21-30 ⁰ lat
	> 1000 m	> 1000 m	0-500 m
Hill	41	61	47
Davis	40	66	55
Forrest	40	58	52
Cobb	38	59	--
Imp. Pelican	71	96	--
Bossier	32	42	55
Pickett 71	30	36	43
Ransom	32	39	50
Williams	31	45	50
Calland	34	52	55
Clark 63	33	50	51
Woodworth	31	44	49
Bragg	34	47	58
Essex	--	45	--
Columbus	--	58	--
Mean	37	53	51
LSD (.05)	9.7	8.1	6.4

Table 21: Amount of lodging of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean lodging score		
	4 sites	5 sites	10 sites
	0-10 ⁰ lat	11-20 ⁰ lat	21-30 ⁰ lat
	> 1000 m	> 1000 m	0-500 m
Hill	1.4	1.9	1.6
Davis	1.0	1.2	1.6
Forrest	1.1	1.6	1.5
Cobb	0.9	1.3	---
Imp. Pelican	1.9	1.6	---
Bossier	1.0	1.0	1.5
Pickett 71	1.2	1.0	1.3
Ransom	0.9	1.0	1.4
Williams	1.2	1.2	1.3
Calland	0.9	1.0	1.4
Clark 63	1.2	1.2	1.3
Woodworth	1.1	1.2	1.2
Bragg	1.1	1.2	1.3
Essex	---	1.0	---
Columbus	---	1.0	---
Mean	1.1	1.2	1.4
LSD (.05)	-NS-	0.55	-NS-

Table 22: Amount of shattered pods of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean shattering score		
	4 sites	4 sites	9 sites
	0-10 ⁰ lat	11-20 ⁰ lat	21-30 ⁰ lat
	> 1000 m	> 1000 m	0-500 m
Hill	1.1	1.0	1.0
Davis	1.2	1.1	1.1
Forrest	1.1	1.0	1.0
Cobb	1.4	1.0	---
Imp. Pelican	1.6	1.0	---
Bossier	1.0	1.1	1.0
Pickett 71	1.6	1.0	1.1
Ransom	1.4	1.1	1.1
Williams	1.6	1.2	1.1
Calland	1.8	1.1	1.1
Clark 63	1.4	1.0	1.0
Woodworth	1.5	1.6	1.0
Bragg	1.4	1.0	1.0
Essex	---	1.0	---
Columbus	---	1.0	---
Mean	1.4	1.1	1.0
LSD (.05)	-NS-	-NS-	-NS-

Table 23: Weight of 100 seeds in grams of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean seed weight (g/100 seeds)		
	4 sites	5 sites	14 sites
	0-10 ⁰ lat	11-20 ⁰ lat	21-30 ⁰ lat
	> 1000 m	> 1000 m	0-500 m
Hill	16.4	17.3	14.0
Davis	25.9	21.3	16.1
Forrest	16.1	17.3	13.5
Cobb	25.0	18.8	----
Imp. Pelican	21.6	16.0	----
Bossier	18.4	19.8	15.2
Pickett 71	17.1	18.1	14.6
Ransom	30.9	21.0	16.6
Williams	18.9	20.7	16.4
Calland	18.2	22.2	17.2
Clark 63	26.5	18.6	15.8
Woodworth	27.6	17.8	15.3
Bragg	20.2	21.2	15.8
Essex	----	18.4	----
Columbus	----	20.1	----
Mean	21.8	19.2	15.5
LSD (.05)	-NS-	1.66	1.18

Table 24: *Quality of harvested seed of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)*

Cultivar	Mean seed quality score		
	5 sites	5 sites	14 sites
	0-10 ⁰ lat	11-20 ⁰ lat	21-30 ⁰ lat
	> 1000 m	> 1000	0-500 m
Hill	1.8	2.0	2.2
Davis	2.1	2.0	2.4
Forrest	2.0	2.6	2.8
Cobb	1.9	2.4	---
Imp. Pelican	2.1	1.7	---
Bossier	1.8	2.4	2.3
Pickett 71	2.0	2.6	2.4
Ransom	2.2	2.5	2.3
Williams	1.8	2.7	2.3
Calland	2.5	3.3	2.9
Clark 63	2.0	2.5	2.2
Woodworth	1.7	2.7	2.4
Bragg	2.6	2.1	2.5
Essex	---	2.6	---
Columbus	---	2.4	---
Mean	2.0	2.4	2.4
LSD (.05)	0.40	0.77	0.43

Table 25: *Selected agronomic characteristics of cultivars observed in the fourth ISVEX conducted in zone X*

Means of observations at 8 sites, 31-40 ^o , 0-500m					
Cultivar	Grain yield (kg/ha)	Rank of grain yield	Days to flower	Days to harvest	
Williams	3324	1	39	118	
Amsoy 71	3131	2	36	115	
Woodworth	3085	3	40	111	
Beeson	3081	4	36	115	
Calland	3025	5	38	122	
Wells	3007	6	36	112	
Cutler 71	3003	9	43	125	
Hodgson	2944	7	34	102	
Corsoy	2928	8	36	110	
Clark 63	2868	10	40	122	
Hark	2799	11	35	111	
Steele	2757	12	35	101	
Mean	2996	--	37	114	
LSD (.05)	-NS-	--	2.4	5.2	

Table 25 (cont'd): Selected agronomic characteristics of cultivars observed in the fourth ISVEX in zone X

Cultivar	Means of observations at 8 sites, 31-40°, 0-500m				
	Plant height (cm)	Lodging score	Shattering score	Seed weight ^{1/} (g/100 seeds)	Seed quality score
Williams	91	1.5	1.1	19.3	1.8
Amsoy 71	89	2.4	1.0	18.4	2.7
Woodworth	85	1.6	1.1	16.7	2.0
Beeson	87	2.1	1.1	18.9	2.8
Calland	99	2.8	1.0	18.0	2.8
Wells	80	1.3	1.0	16.2	2.9
Cutler 71	100	2.2	1.2	18.6	2.4
Hodgson	70	1.2	1.0	17.2	2.0
Corsoy	76	1.8	1.1	16.6	2.5
Clark 63	94	2.3	1.1	16.4	2.3
Hark	82	1.8	1.0	17.3	2.5
Steele	72	1.5	1.0	17.9	2.1
Mean	85	1.9	1.1	17.6	2.4
LSD (.05)	6.4	0.61	-NS-	1.14	0.51

^{1/} Mean from 7 sites only

Table 26: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (I, II, and IV)

Cultivar	Mean protein and oil content (%)					
	8 sites		1 site		10 sites	
	0-10° lat	0-500 m	0-10° lat	501-1000 m	11-20° lat	0-500 m
	Protein	Oil	Protein	Oil	Protein	Oil
Bossier	41.4	22.2	42.8	22.5	44.7	21.7
Imp. Pelican	41.2	22.6	42.0	22.8	42.7	23.1
Bragg	41.0	22.8	42.2	22.6	42.5	22.5
Pickett 71	40.0	23.0	42.0	21.9	42.6	23.1
Calland	39.8	21.6	44.5	19.6	42.5	21.6
Jupiter	39.6	23.5	41.0	23.8	--	--
Davis	39.6	22.5	43.2	21.6	41.8	22.5
Forrest	39.4	21.9	41.0	22.3	41.5	22.3
Williams	39.2	23.2	41.7	23.8	42.9	23.3
Clark 63	39.2	23.0	41.2	22.6	42.9	22.8
Cobb	38.5	23.1	41.0	22.4	39.0	23.8
Ransom	38.3	24.8	41.9	24.6	40.7	24.4
Hill	37.7	22.2	38.8	22.9	41.0	22.2
Woodworth	37.7	23.3	42.0	22.6	42.2	23.9
Essex	--	--	44.4	21.4	--	--
Columbus	--	--	42.9	21.4	43.1	22.5
Mean	39.5	22.8	42.0	22.5	42.1	22.8

1/ Ranking of mean protein content within environmental zone

Table 27: Percent protein and oil in cultivars observed in the first joint INTSOY/IITA Soybean Variety Evaluation Experiment conducted in zone I

Cultivar	Mean protein and oil content (%)	
	6 sites	
	0-10° lat	0-500 m
	Protein	Oil
TGm 294-4-2371	47.5	19.2
TGm 256-1-b	47.1	19.6
Bossier	45.8	22.4
TGx 66-5100	45.1	20.3
TGm 255-2-4341	44.8	23.0
TGm 210-1-2363	44.8	21.9
Davis	44.5	22.4
Imp. Pelican	44.3	23.0
TGm 249-4-b	44.2	23.3
TGm 220-1-2205	44.2	22.2
Jupiter	43.8	23.8
Williams	43.2	24.3
TGx 13-3-2644	42.8	23.2
Cobb	40.9	24.4
Mean	44.5	22.4

Table 28: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, V, and VI)

Cultivar	Mean protein and oil content (%)					
	6 sites 0-10° lat		1 site 11-20° lat		4 sites 11-20° lat	
	Protein	Oil	Protein	Oil	Protein	Oil
	> 1000 m		500-1000 m		> 1000 m	
Imp. Pelican	45.5 (1)	19.1	42.2 (2)	18.8	42.5 (1)	20.7
Bossier	44.5 (2)	19.9	--	--	42.1 (3)	21.3
Williams	44.2 (3)	19.7	42.0 (4)	22.8	40.3 (10)	22.2
Calland	43.8 (4)	19.4	41.0 (5)	22.3	41.2 (7)	21.2
Clark 63	43.7 (5)	20.2	39.9 (6)	23.3	39.7 (11)	22.2
Bragg	43.6 (6)	19.8	--	--	41.3 (6)	21.2
Woodworth	43.2 (7)	19.5	37.4 (14)	24.3	38.8 (15)	22.2
Davis	42.7 (8)	20.6	39.6 (8)	23.4	41.8 (5)	20.9
Ransom	42.7 (9)	22.1	37.9 (13)	25.6	40.4 (9)	23.3
Pickett 71	42.3 (10)	21.1	39.8 (7)	24.3	41.1 (8)	21.9
Hill	41.8 (11)	19.1	39.0 (11)	22.3	39.4 (12)	21.0
Cobb	41.3 (12)	20.8	38.7 (12)	24.9	39.2 (14)	22.7
Jupiter	--	--	43.9 (1)	12.6	--	--
Columbus	--	--	42.0 (3)	23.1	42.0 (4)	21.3
Cutler 71	--	--	39.6 (9)	23.2	--	--
Forrest	--	--	39.3 (10)	22.8	39.4 (13)	21.4
Essex	--	--	--	--	42.1 (2)	20.6
Mean	43.2	20.1	39.8	23.4	40.8	21.6

Table 29: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (VII, VIII, and IX)

Cultivar	Mean protein and oil content (%)					
	8 sites		3 sites		2 sites	
	21-30° lat		21-30° lat		21-30° lat	
	Protein	Oil	Protein	Oil	Protein	Oil
	0-500 m		500-1000 m		> 1000 m	
Bossier	43.6	20.7	44.8	19.8	41.2	16.1
Cutler 71	43.0	22.0	44.8	20.0	39.6	18.7
Bragg	42.6	21.6	42.8	20.4	39.7	16.7
Calland	42.1	21.3	44.8	18.2	41.0	19.1
Williams	41.9	22.6	44.4	20.4	38.5	20.1
Davis	41.4	22.4	42.6	21.0	38.8	18.9
Clark 63	41.3	22.7	43.8	21.2	41.9	19.2
Pickett 71	40.9	22.6	43.4	20.7	39.6	16.4
Forrest	40.8	21.8	--	--	38.6	18.1
Woodworth	40.6	23.6	41.3	20.8	39.0	19.6
Ransom	40.3	24.3	41.0	23.2	35.5	19.5
Hill	40.0	21.5	42.5	19.7	40.3	16.5
Wells	--	--	--	--	40.1	19.6
Beeson	--	--	--	--	39.5	19.6
Mean	41.5	22.2	43.2	20.5	39.5	18.6

Table 30: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (X, XI, and XII)

Cultivar	Mean protein and oil content (%)					
	4 sites 31-40° lat		1 site 31-40° lat		1 site 31-40° lat	
	Protein 0-500 m	Oil	Protein 501-1000 m	Oil	Protein > 1000 m	Oil
Columbus	41.7 (1)	20.4	43.4 (1)	17.5	39.9 (11)	20.9
Cutler 71	41.7 (2)	21.7	39.9 (11)	21.0	41.5 (8)	20.5
Clark 63	41.6 (3)	21.4	41.8 (4)	20.3	41.7 (7)	21.5
Beeson	41.3 (4)	21.7	41.8 (2)	18.9	40.0 (9)	21.3
Steele	41.2 (5)	21.6	41.7 (5)	19.9	43.7 (1)	21.8
Wells	40.6 (6)	21.7	40.7 (9)	21.2	--	--
Williams	40.4 (7)	21.9	41.0 (8)	20.8	42.2 (6)	20.7
Calland	40.3 (8)	20.8	41.2 (6)	20.3	42.7 (4)	20.8
Corsoy	40.2 (9)	21.0	41.8 (3)	18.9	42.3 (5)	20.7
Hark	40.1 (10)	21.2	41.1 (7)	19.5	39.2 (13)	22.6
Hodgson	39.6 (11)	22.8	40.5 (10)	20.9	40.0 (10)	23.4
Woodworth	39.3 (12)	21.7	38.8 (12)	21.0	39.5 (12)	22.8
Amsoy 71	38.8 (13)	22.1	38.3 (13)	20.6	38.4 (15)	22.0
Altona	--	--	--	--	43.5 (2)	17.3
Forrest	--	--	--	--	42.8 (3)	16.4
Swift	--	--	--	--	39.2 (14)	22.4
Mean	40.5	21.5	40.8	20.2	41.0	21.2

Table 31: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in zone XIII

Cultivar	Mean protein and oil content (%)	
	3 sites	
	<u>≥ 41° lat</u>	
	<u>> 0 m</u>	
	Protein	Oil
Wells	42.8	19.3
Beeson	40.3	19.8
Woodworth	40.2	19.8
Calland	39.7	20.6
Williams	39.3	20.1
Clark 63	38.7	20.7
Mean	40.2	20.0

Table 32: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone I

Cultivar	Mean for two years				
	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	2484	31	98	33	22
Jupiter	2327	38	111	66	32
Forrest	2280	30	92	34	24
Imp. Pelican	2278	35	97	69	32
Williams	2132	28	88	42	20
Bossier	2084	32	95	34	22
Mean	2264	32	97	46	25
					19.0
					19.2
					15.9
					15.1
					19.3
					17.8
					17.7

Table 33: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone I

Cultivar	Mean for three years				
	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	2495	31	97	34	24
Jupiter	2418	38	110	67	34
Imp. Pelican	2328	35	97	69	34
Bossier	2268	33	96	39	25
Forrest	2249	30	91	34	26
Williams	2163	28	88	43	21
Mean	2320	32	96	48	27
					Seed weight (g/100 seeds)
					19.0
					19.3
					15.1
					17.8
					16.0
					19.7
					17.8

Table 34: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone III

Cultivar	Mean for two years				
	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	1722	66	131	40	22
Forrest	1674	58	132	43	22
Bossier	1568	58	129	38	22
Williams	1472	46	121	32	18
Imp. Pelican	1468	74	142	68	29
Mean	1581	60	131	44	23
					Seed weight (g/100 seeds)
					21.6
					16.2
					17.1
					19.0
					17.9
					18.4

Table 35: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone IV

Cultivar	Mean for two years				
	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	2266	33	96	42	30
Forrest	2123	30	93	40	30
Cobb	1976	31	98	38	30
Williams	1966	28	86	48	22
Bossier	1874	30	96	34	27
Clark 63	1844	28	88	48	25
Mean	2008	30	93	42	27
					Seed weight (g/100 seeds)
					16.7
					15.0
					16.9
					18.6
					17.1
					17.2
					16.9

Table 36: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone IV

Cultivar	Mean for three years				
	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	2227	34	98	40	30
Forrest	2050	31	94	38	32
Bossier	2019	33	99	40	29
Williams	1983	29	87	47	23
Clark 63	1874	29	89	48	25
Mean	2031	31	93	43	28
					Seed weight (g/100 seeds)
					16.9
					15.1
					16.9
					18.6
					17.3
					17.0

Table 37: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone VII

Cultivar	Mean for two years				
	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	2348	46	108	48	32
Bossier	2248	44	113	50	36
Forrest	2208	40	102	46	32
Williams	1951	32	92	48	24
Clark 63	1840	33	96	49	24
Woodworth	1586	32	89	45	23
Mean	2030	38	100	48	28
					Seed weight (g/100 seeds)
					15.6
					14.1
					13.1
					16.2
					15.4
					14.8
					14.9

Table 38: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone VII

Cultivar	Mean for three years				
	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	1851	45	110	54	36
Bossier	1836	46	114	62	42
Forrest	1809	40	102	49	37
Williams	1685	31	91	50	26
Clark 63	1591	32	94	53	27
Mean	1754	39	102	54	34
					Seed weight (g/100 seeds)
					14.7
					13.5
					12.4
					15.1
					14.5
					14.0

Table 39: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone X

Cultivar	Mean for two years				
	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Williams	2964	42	116	88	33
Amsoy 71	2709	36	114	84	32
Calland	2698	39	122	96	36
Woodworth	2654	42	112	82	34
Beeson	2646	36	114	82	30
Wells	2555	36	110	77	32
Hark	2530	35	110	78	34
Corsoy	2521	36	110	75	37
Hodgson	2509	34	102	68	34
Mean	2643	37	112	81	34
					17.0
					18.3
					17.8
					17.6
					16.0
					18.2
					15.7
					17.0
					15.9
					16.3

TABLE 40 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2524.97	30.08	99.13	94.05	190.20	0.48	1.96	32.82	1.07
FOREST	2399.34	29.27	90.12	81.60	151.85	0.33	1.44	34.53	1.09
IMPROVED PELICAN	2364.84	33.62	98.35	85.72	187.65	0.36	1.59	74.13	1.86
BRAGG	2305.99	29.75	95.15	74.63	171.38	0.27	1.47	37.45	1.21
WILLIAMS	2246.42	27.07	88.23	101.62	148.20	0.33	1.18	42.21	1.04
JUPITER	2241.50	38.25	115.33	109.62	216.87	0.47	1.74	67.93	1.79
BOSSIER	2143.38	30.22	94.33	100.32	186.72	0.42	2.09	33.16	1.07
CLARK 63	2116.71	28.67	86.93	76.42	133.95	0.38	1.37	45.31	1.20
HILL	2092.52	30.65	91.25	80.27	136.42	0.30	1.24	35.70	1.14
GRAND MEAN	2270.54	30.84	95.40	89.80	189.25	0.37	1.56	44.80	1.27
NUMBER EXPERIMENTS CONTRIBUTING	15	15	15	15	15	13	13	15	14
STANDARD ERROR OF VARIETY MEAN	110.51	6.80	1.45	6.37	13.33	0.05	0.20	2.07	0.13
COEFFICIENT OF VARIATION	37.70%	20.05%	11.77%	54.94%	61.03%	97.18%	91.83%	35.85%	76.01%
5% LSD VARIETY MEANS (*****=NS)	*****	2.24	4.06	17.85	37.36	0.14	0.56	5.81	0.36
CORRELATIONS AND NUMBER OF OBSERVATIONS									
(* - PROB=.05, ** - PROB=.01)									
YIELD	1.00	0.05	0.47**	-0.07	0.15**	0.07	0.10+	0.48**	0.12**
DAYS TO FLOWER	540	540	540	540	540	468	468	540	504
DAYS TO MATURITY	0.47**	0.47**	0.47**	0.07	0.16**	0.20**	0.14**	0.44**	0.36**
NODULE NUMBER 1	540	540	540	540	540	468	468	540	504
NODULE NUMBER 2	0.15**	0.15**	0.14**	-0.07	0.14**	0.22**	0.25**	0.48**	0.34**
NODULE WEIGHT 1	0.37	0.20**	0.22**	0.07	0.11+	0.13**	0.13**	0.02	-0.09+
NODULE WEIGHT 2	468	468	468	468	468	468	468	540	504
PLANT HEIGHT	0.48**	0.44**	0.43**	0.02	0.18**	0.12**	0.10+	1.00	0.51**
LODGING	0.12**	0.35**	0.34**	-0.09+	-0.01	0.10+	0.11+	0.51**	1.00
SHATTER	0.02	-0.02	0.23**	-0.05	-0.02	-0.03	-0.03	0.02	0.09
PLANTS HARVEST	0.18**	-0.15**	0.07	-0.06	-0.06	0.21**	0.24**	0.13**	0.01
PODS PER PLANT	0.49**	0.34**	0.47**	-0.14**	0.06	0.03	0.05	0.50	0.30**
100 SEED WEIGHT	0.58**	0.01	0.45**	0.14**	0.27**	-0.03	-0.03	0.21**	-0.00
QUALITY OF SEED	-0.12**	0.17**	0.15**	0.06	-0.07	-0.15**	-0.26**	-0.08	0.14**
	504	504	504	504	504	432	432	504	468

TABLE 40 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.13	224.98	21.25	18.66	1.77
FORREST	1.02	220.80	22.45	14.96	1.98
IMPROVED PELICAN	1.10	222.95	33.25	14.39	1.36
BRAGG	1.04	219.68	18.91	18.33	1.73
WILLIAMS	1.02	221.37	18.15	18.43	1.64
JUPITER	1.08	207.50	31.12	18.33	2.23
BOSSIER	1.06	234.10	21.70	17.02	1.96
CLARK 63	1.10	232.88	21.21	16.96	1.68
HILL	1.02	217.22	23.05	15.90	1.73
GRAND MEAN	1.06	219.04	23.45	17.00	1.79
NUMBER EXPERIMENTS CONTRIBUTING	13	15	15	15	14
STANDARD ERROR OF VARIETY MEAN	0.04	5.67	1.65	0.34	0.17
COEFFICIENT OF VARIATION	29.45%	20.05%	54.39%	15.70%	69.76%
5% LSD VARIETY MEANS (*****=NS)	*****	15.88	4.62	0.97	0.47
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)					
YIELD KG/HA	0.02	0.13++	0.49++	0.68++	-0.12++
DAYS TO FLOWER	458	540	540	540	504
DAYS TO MATURITY	-0.02	-0.15++	0.34++	0.01	0.17++
	468	540	540	540	504
NODULE NUMBER 1	0.23++	0.07	0.47++	0.45++	0.15++
	458	540	540	540	504
NODULE NUMBER 2	-0.05	-0.06	-0.14++	0.14++	0.06
	468	540	540	540	504
NODULE WEIGHT 1	-0.02	-0.06	0.05	0.27++	-0.07
	458	540	540	540	504
NODULE WEIGHT 2	-0.03	0.21++	0.03	-0.03	-0.15++
	396	468	468	468	432
PLANT HEIGHT	-0.00	0.24++	0.05	-0.03	-0.26++
	396	453	463	468	432
LODGING	0.02	0.13++	0.53++	0.21++	-0.08
	468	540	540	540	504
SHATTER	0.09	0.01	0.30++	-0.00	0.14++
	458	504	504	504	468
PLANTS HARVEST	1.00	0.01	0.12++	0.09	0.31++
	468	468	468	468	432
PODS PER PLANT	0.01	1.00	-0.15++	-0.12++	-0.12++
	458	540	540	540	504
100 SEED WEIGHT	0.12++	-0.15++	1.00	0.37++	0.10+
	468	540	540	540	504
QUALITY OF SEED	0.09	-0.12++	0.37++	1.00	0.00
	458	540	540	540	504
	0.31++	-0.12++	0.10+	0.00	1.00
	432	504	504	504	504

TABLE 41 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2137.65	28.35	91.75	138.44	224.63	1.62	2.40	32.42	1.40
TGX 13-3-2644	2135.91	41.10	106.50	164.88	340.63	1.90	3.12	63.26	2.30
JUPITER	2102.85	44.25	105.33	196.94	301.00	1.38	2.17	58.20	2.40
TGM 210-1-2363	2025.89	38.55	95.88	131.75	213.44	1.26	1.88	50.78	2.05
TGM 220-1-2205	1972.69	44.20	103.25	177.69	231.00	1.42	2.63	43.50	2.35
TGM 256-1-B	1942.33	37.95	97.75	162.56	273.69	1.60	2.90	56.36	2.05
TGM 294-4-2371	1928.02	41.05	103.21	158.38	260.44	1.29	2.26	57.74	1.95
IMPROVED PELICAN	1898.64	33.65	91.25	117.00	210.81	1.06	1.70	67.05	1.85
TGM 255-2-4341	1871.35	35.55	100.21	161.50	299.13	1.21	2.62	53.94	2.00
TGM 249-4-B	1859.40	35.50	101.08	162.44	357.00	1.59	2.98	60.18	2.70
WILLIAMS	1797.72	26.50	83.00	160.38	228.88	1.44	2.37	42.30	1.95
COBB	1782.37	27.55	90.00	124.94	262.88	1.97	3.07	32.61	1.10
TGX 66-5100	1698.81	36.25	97.83	111.13	198.13	1.46	2.45	61.05	2.05
CLARK 63	1667.56	25.50	85.08	149.00	233.56	1.44	2.56	43.20	2.10
BOSSIER	1450.57	25.30	87.54	145.44	262.63	1.62	2.88	26.93	1.30
GRAND MEAN	1886.78	34.75	95.98	150.83	259.85	1.48	2.53	49.97	1.97
NUMBER EXPERIMENTS CONTRIBUTING	6	5	6	4	4	3	3	6	5
STANDARD ERROR OF VARIETY MEAN	138.50	2.40	3.25	21.33	37.46	0.25	0.43	3.83	0.36
COEFFICIENT OF VARIATION	35.96	30.92	16.59	56.56	57.67	59.38	58.42	37.54	80.61
5% LSD VARIETY MEANS (****=NS)	*****	6.81	9.17	*****	*****	*****	*****	10.80	*****

CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)									
YIELD	1.00	0.25++	0.12+	0.41++	0.65++	0.48++	0.72++	0.46++	0.15+
DAYS TO FLOWER	360	300	360	240	240	180	180	360	300
DAYS TO MATURITY	0.25++	1.00	0.48++	0.21++	0.26++	0.24++	0.27++	0.27++	-0.01
NODULE NUMBER 1	0.12+	0.48++	1.00	0.14+	0.30++	0.18+	0.28++	0.27++	0.01
NODULE NUMBER 2	0.41++	0.21++	0.14+	0.240	0.240	0.91++	0.86++	0.05	-0.24++
NODULE WEIGHT 1	0.65++	0.26++	0.30++	0.77++	1.00	0.88++	0.93++	0.33++	-0.14
NODULE WEIGHT 2	0.48++	0.24++	0.18+	0.91++	0.88++	1.00	0.95++	0.07	-0.51++
PLANT HEIGHT	0.72++	0.27++	0.28++	0.86++	0.93++	0.95++	1.00	0.31++	-0.54++
LODGING	0.46++	0.27++	0.27++	0.05	0.33++	0.07	0.31++	1.00	0.36++
SHATTER	0.15+	-0.01	0.01	-0.24++	-0.14	-0.51++	-0.54++	0.36++	1.00
PLANTS HARVEST	-0.54++	-0.01	0.13+	-0.12	-0.12	-0.13	-0.23+	-0.22++	-0.12+
PODS PER PLANT	0.39++	-0.10	-0.28++	-0.19++	-0.27++	-0.40++	-0.41++	0.21++	0.22++
100 SEED WEIGHT	0.25++	0.21++	0.35++	-0.22++	0.48++	-0.20++	0.44++	0.47++	0.28++
QUALITY OF SEED	-0.25++	-0.02	-0.11	0.38++	0.52++	0.45++	0.57++	0.07	-0.21++
	180	120	180	120	60	120	60	180	180

TABLE 41 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.00	166.54	24.12	18.92	1.50
TGX 13-3-2644	1.10	148.71	35.43	16.65	1.58
JUPITER	0.95	104.29	43.30	18.32	2.50
TGM 210-1-2363	1.95	163.00	31.48	16.02	1.75
TGM 220-1-2205	1.25	114.13	40.65	14.00	2.08
TGM 256-1-B	0.95	164.54	31.28	13.57	1.58
TGM 294-4-2371	1.05	182.50	27.54	15.57	1.33
IMPROVED PELICAN	0.85	134.04	43.98	13.76	1.58
TGM 255-2-4341	1.10	140.79	45.20	12.67	1.92
TGM 249-4-B	1.05	100.17	44.58	15.27	1.58
WILLIAMS	0.80	151.46	21.13	20.04	1.75
COBB	1.25	135.67	26.80	19.45	1.83
TGX 66-5100	1.05	152.79	33.66	14.93	1.33
CLARK 63	0.90	156.63	22.02	18.26	2.33
BOSSIER	0.85	124.96	25.17	18.04	2.17
GRAND MEAN	1.07	142.68	33.09	16.36	1.79
NUMBER EXPERIMENTS CONTRIBUTING	5	6	6	5	3
STANDARD ERROR OF VARIETY MEAN	0.19	11.95	3.27	0.52	0.25
COEFFICIENT OF VARIATION	77.16%	41.03%	48.38%	14.28%	48.74%
5% LSD VARIETY MEANS (*****=NS)	0.52	33.71	9.22	1.48	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS					
{+ - PROB=.05, ++ - PROB=.01}					
YIELD KG/HA	-0.54++	0.39++	0.25++	0.60++	-0.25++
DAYS TO FLOWER	-0.01	-0.10	0.21++	-0.02	-0.01
DAYS TO MATURITY	0.13+	-0.28++	0.35++	-0.11	-0.02
NODULE NUMBER 1	-0.12	-0.19++	-0.22++	0.38++	0.05
NODULE NUMBER 2	-0.12	-0.27++	0.48++	0.52++	0.12
NODULE WEIGHT 1	-0.13	-0.40++	-0.20++	0.45++	0.09
NODULE WEIGHT 2	-0.23+	-0.41++	0.44++	0.57++	0.16
PLANT HEIGHT	-0.22++	0.21++	0.47++	0.07	-0.21++
LODGING	-0.12+	0.22++	0.28++	-0.21++	-0.12
SHATTER	1.00	-0.47++	-0.01	-0.41++	0.15+
PLANTS HARVEST	-0.47++	1.00	-0.26++	0.13+	-0.42++
PODS PER PLANT	-0.01	-0.26++	1.00	0.06	-0.07
100 SEED WEIGHT	-0.41++	0.13+	0.00	1.00	-0.06
QUALITY OF SEED	0.15+	-0.42++	-0.07	-0.06	1.00
	180	180	180	180	180

TABLE 42 COMBINED ANALYSIS OF SITES IN ZONE III FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
HILL	1990.24	58.40	125.80	100.94	132.44	2.81	1.33	40.60	1.38
DAVIS	1933.88	63.40	129.55	94.81	126.88	3.42	1.61	39.99	1.00
FRERST	1866.75	52.95	128.90	101.25	150.50	3.10	1.57	40.39	1.13
CCBE	1696.75	58.45	128.50	100.38	127.63	3.07	1.50	38.33	0.88
IMPROVED PELICAN	1660.56	73.50	138.65	70.63	116.63	3.48	1.46	70.61	1.88
BCSSIER	1615.56	49.30	123.60	156.13	145.31	3.54	1.61	32.26	1.00
PICKETT 71	1590.35	50.15	122.00	86.88	106.81	2.31	1.24	30.33	1.19
RANSOM	1457.89	46.45	124.00	186.38	169.06	3.52	1.48	31.75	0.88
WILLIAMS	1448.34	42.20	113.45	176.63	165.00	3.46	1.63	31.47	1.19
CALLAND	1339.91	40.95	123.10	102.56	116.69	2.53	1.42	33.60	0.94
CLARK 63	1173.84	40.55	119.00	150.69	130.06	3.12	1.35	33.43	1.25
WCOLWORTH	1128.38	41.55	112.95	134.13	124.75	2.52	1.25	30.60	1.06
ERAGG	1057.20	52.50	124.00	114.94	137.56	2.64	1.57	33.64	1.13
GRAND MEAN	1535.36	51.57	124.12	121.25	134.56	3.04	1.46	37.46	1.14
NUMBER EXPERIMENTS CONTRIBUTING	6	5	5	4	4	2	2	6	4
STANDARD ERROR OF VARIETY MEAN	133.71	3.38	3.46	14.04	14.37	0.48	0.32	3.42	0.23
COEFFICIENT OF VARIATION	42.66%	29.34%	12.48%	46.31%	42.73%	44.47%	62.75%	44.69%	81.10%
5% LSD VARIETY MEANS (****=NS)	378.24	9.62	9.85	40.26	*****	*****	*****	9.67	*****

CORRELATIONS AND NUMBER OF OBSERVATIONS									
(* - PROB=-.05, ** - PROB=-.01)									
YIELD	KG/HA	1.00	0.21**	0.12	-0.09	0.14*	-0.10	0.30**	-0.16*
DAYS TO FLOWER	312	0.21**	260	0.260	0.208	0.208	104	104	0.38**
DAYS TO MATURITY	260	1.00	260	0.84**	-0.02	0.27**	-0.29*	0.35**	0.04
NODULE NUMBER 1	0.12	0.84**	1.00	0.33**	0.33**	0.56**	0.00	0.00	0.37**
NODULE NUMBER 2	260	0.02	0.33**	1.00	0.60**	0.60**	0.14	0.03	-0.13
NODULE WEIGHT 1	208	0.14*	0.27**	0.56**	0.60**	0.60**	104	104	0.39**
NODULE WEIGHT 2	208	0.10	0.29*	0.00	0.14	-0.01	104	104	0.07
PLANT HEIGHT	312	0.38**	0.56**	0.37**	-0.06	0.08	0.58**	0.58**	0.00
LODGING	208	0.16*	0.04	0.13	0.39**	0.07	104	104	0.20*
SHATTER	208	0.08	0.08	0.18**	0.23*	-0.02	0.00	0.25**	0.35**
PLANTS HARVEST	0.37**	-0.36**	-0.46**	0.01	-0.24**	0.24	0.22	0.21**	-0.14*
PODS PER PLANT	0.51**	0.56**	0.39**	0.16*	0.35**	0.51**	0.48**	0.68**	0.03
100 SEED WEIGHT	0.06	-0.06	-0.03	0.29**	0.25**	0.45**	0.00	0.07	0.21**
QUALITY OF SEED	-0.00	-0.51**	-0.58**	-0.33**	-0.25**	-0.05	0.06	-0.09	0.10
	260	260	260	156	156	156	52	260	156

TABLE 42 COMBINED ANALYSIS OF SITES IN ZONE III FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
HILL	1.13	200.10	22.41	16.36	1.75
DAVIS	1.25	188.15	22.88	25.88	2.10
FOREST	1.13	174.30	20.37	16.13	1.95
COBB	1.38	174.30	24.79	25.04	1.90
IMPROVED PELICAN	1.63	169.00	37.07	21.65	2.10
BOSSIER	1.00	167.05	19.69	18.38	1.85
PICKETT 71	1.56	171.55	17.78	17.13	1.95
RANSCM	1.44	182.10	18.17	30.91	2.20
WILLIAMS	1.56	176.10	15.74	18.91	1.80
CALLAND	1.75	193.45	14.67	18.25	2.50
CLARK 63	1.38	182.80	15.58	26.51	1.95
WOOLWORTH	1.50	193.10	14.65	27.64	1.70
BRAGG	1.44	186.20	13.01	20.24	2.55
GRAND MEAN	1.39	181.40	19.76	21.77	2.02
NUMBER EXPERIMENTS CONTRIBUTING	4	5	6	4	5
STANDARD ERROR OF VARIETY MEAN	0.16	7.12	2.53	4.92	0.14
COEFFICIENT OF VARIATION	44.82%	17.56%	62.72%	90.37%	31.29%
5% LSD VARIETY MEANS (****=NS)	*****	20.25	7.15	*****	0.40
CORRELATIONS AND NUMBER OF OBSERVATIONS					
(+ - PROB=-.05, ++ - PROB=.01)					
YIELD	KG/HA	0.37++	0.51++	0.06	-0.00
DAYS TO FLOWER	0.08	260	312	208	260
DAYS TO MATURITY	0.08	-0.36++	0.56++	-0.06	-0.51++
NODULE NUMBER 1	0.18++	-0.46++	0.39++	156	260
NODULE NUMBER 2	0.23+	260	260	-0.03	-0.58++
NODULE WEIGHT 1	0.01	0.01	0.16+	156	260
NODULE WEIGHT 2	-0.02	156	208	0.29++	-0.33++
PLANT	0.00	-0.24++	0.35++	156	156
HEIGHT	0.00	0.24	208	0.25++	-0.25++
LODGING	0.25++	0.22	-0.51++	156	156
SHATTER	0.21++	52	104	0.45++	-0.05
PLANTS	0.00	52	104	104	52
PODS PER	0.25++	52	104	104	52
100 SEED	0.21++	260	0.68++	0.07	-0.09
QUALITY	-0.14+	208	312	208	260
OF SEED	208	0.03	0.21++	0.10	-0.05
	1.00	208	208	156	208
	0.31++	0.31++	0.17+	-0.14	0.04
	208	208	208	156	208
	0.31++	1.00	0.04	0.05	0.47++
	208	260	260	156	260
	0.17+	0.04	1.00	-0.01	-0.11
	208	260	312	208	260
	-0.14	0.05	-0.01	1.00	-0.21++
	156	156	208	208	156
	0.04	0.47++	-0.11	-0.21++	1.00
	208	260	260	156	260

TABLE 43 COMBINED ANALYSIS OF SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2465.90	33.23	93.92	135.31	258.27	0.88	3.33	49.18	1.42
CALLAND	2356.00	25.65	88.36	84.77	203.63	0.62	2.96	58.78	1.56
FORREST	2289.91	29.30	90.92	99.25	242.98	0.64	2.68	42.65	1.17
COBB	2236.15	30.25	97.43	105.44	244.85	0.69	2.95	44.20	1.22
BRAGG	2206.06	28.80	92.61	100.98	278.25	0.70	3.11	42.07	1.25
RANSOM	2192.60	28.77	94.34	119.23	285.21	0.71	2.93	37.73	1.14
CLARK 63	2101.88	25.95	86.77	92.21	193.87	0.51	2.49	54.64	1.69
WILLIAMS	2091.88	26.08	85.55	119.02	234.00	0.65	2.84	53.72	1.38
PICKETT 71	2060.56	28.65	92.31	72.60	171.42	0.66	2.43	31.24	1.09
HILL	1969.84	31.42	87.72	92.15	170.63	0.63	1.99	40.24	1.44
BOSSIER	1953.32	27.75	95.11	111.35	251.29	0.82	3.09	35.95	1.16
IMPROVED PELICAN	1856.71	39.07	102.27	122.13	221.15	1.00	2.33	85.89	2.09
WOODWORTH	1685.35	25.37	83.98	84.40	166.71	0.53	2.35	47.91	1.50
GRAND MEAN	2112.79	29.25	91.64	102.99	224.79	0.70	2.73	48.01	1.39
NUMBER EXPERIMENTS CONTRIBUTING	16	15	16	12	13	9	9	16	16
STANDARD ERROR OF VARIETY MEAN	119.27	0.74	1.75	10.88	18.20	0.07	0.22	2.50	0.12
COEFFICIENT OF VARIATION	45.16%	19.47%	15.25%	73.23%	58.40%	62.38%	48.39%	41.58%	71.55%
5% LSD VARIETY MEANS (****=NS)	332.85	2.05	4.88	30.45	50.89	0.20	0.62	6.96	0.35
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)									
YIELD	1.00	0.29++	0.31++	0.29++	0.28++	0.01	0.15++	0.23++	-0.13++
DAYS TO FLOWER	832	780	832	624	676	468	468	832	832
DAYS TO MATURITY	0.29++	1.00	0.48++	0.29++	0.06	0.35++	0.11+	0.36++	0.09+
NODULE NUMBER 1	832	0.48++	1.00	0.35++	0.50++	0.17++	0.38++	0.27++	-0.09++
NODULE NUMBER 2	624	0.29++	0.35++	624	676	468	468	832	832
NODULE WEIGHT 1	624	0.29++	0.35++	1.00	0.53++	0.64++	0.40++	0.37++	-0.00
NODULE WEIGHT 2	676	0.06	0.50++	0.53++	572	468	364	624	624
NODULE WEIGHT 1	0.01	0.35++	0.17++	0.64++	0.02	1.00	0.31++	0.08	-0.07
NODULE WEIGHT 2	468	0.48	468	468	416	468	364	468	468
PLANT HEIGHT	468	0.11+	0.33++	0.40++	0.59++	0.31++	1.00	-0.04	-0.25++
LODGING	0.23++	0.36++	0.27++	0.37++	0.28++	0.08	-0.04	1.00	0.40++
SHATTER	832	780	832	624	676	468	468	832	832
PLANTS HARVEST	-0.13++	0.09+	-0.09++	-0.07	-0.07	-0.07	-0.25++	0.40++	1.00
PODS PER PLANT	832	780	832	624	676	468	468	832	832
100 SEED WEIGHT	-0.07	-0.09+	-0.19++	-0.14++	-0.18++	-0.06	-0.03	-0.06	-0.05
QUALITY OF SEED	-0.12++	-0.25++	-0.16++	-0.03	-0.26++	0.04	-0.24++	-0.03	0.18++
	832	780	832	624	676	468	468	832	832
	0.36++	0.44++	0.29++	0.34++	0.27++	0.15++	0.05	0.47++	-0.01
	728	676	728	520	572	364	364	728	728
	0.40++	0.16++	0.25++	0.13++	-0.10++	0.14++	0.37++	-0.13++	-0.13++
	780	728	780	572	624	416	416	780	780
	-0.17++	-0.14++	0.24++	0.11+	0.40++	-0.02	0.27++	0.16++	0.16++
	576	624	676	520	624	364	416	676	676

TABLE 43 COMBINED ANALYSIS OF SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.17	217.64	31.87	16.36	2.56
CALLAND	1.29	210.73	24.57	19.40	2.88
FORREST	1.08	199.61	28.65	14.97	2.94
COBB	1.17	186.08	30.54	16.18	2.75
BRAGG	1.00	206.81	25.63	16.37	3.04
RANSOM	1.02	204.00	23.57	17.44	3.06
CLARK 63	1.06	202.17	23.29	17.44	2.56
WILLIAMS	1.10	206.48	21.37	18.68	2.38
PICKETT 71	1.25	195.30	22.41	16.73	2.63
HILL	1.25	210.69	25.76	15.85	2.50
BOSSIER	1.02	165.77	24.83	16.70	2.77
IMPROVED PELICAN	1.08	154.77	39.94	12.84	2.54
WOODWORTH	1.37	199.39	20.97	16.88	2.79
GRAND MEAN	1.14	196.83	26.42	16.60	2.72
NUMBER EXPERIMENTS CONTRIBUTING	13	16	14	15	13
STANDARD ERROR OF VARIETY MEAN	0.12	5.01	2.11	0.50	0.22
COEFFICIENT OF VARIATION	74.92%	20.36%	59.81%	23.44%	57.76%
5% LSD VARIETY MEANS (****=NS)	*****	13.98	5.90	1.40	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)					
YIELD	-0.07	-0.12++	0.35++	0.40++	-0.17++
DAYS TO FLOWER	576	832	728	780	676
	-0.09+	-0.25++	0.44++	0.16++	-0.14++
DAYS TO MATURITY	624	780	676	624	624
	-0.19++	-0.16++	0.29++	0.25++	0.24++
NODULE NUMBER 1	676	832	728	780	676
	-0.14++	-0.03	0.34++	0.13++	0.11+
NODULE NUMBER 2	468	624	520	572	520
	-0.18++	-0.26++	0.27++	-0.10++	0.40++
NODULE WEIGHT 1	520	676	572	624	624
	-0.06	0.04	0.15++	0.14++	-0.02
NODULE WEIGHT 2	312	468	364	416	364
	-0.03	-0.24++	0.05	0.37++	0.27++
PLANT	312	468	364	416	416
	-0.06	-0.03	0.47++	-0.13++	0.16++
LODGING	676	832	728	780	676
	-0.05	0.18++	-0.01	-0.13++	0.16++
SHATTER	576	832	728	780	676
	1.00	-0.12++	0.04	-0.04	0.02
PLANTS	676	676	624	624	572
	-0.12++	1.00	-0.33++	-0.02	-0.10++
PODS PER	676	832	728	780	676
	0.04	-0.38++	1.00	0.08+	-0.04
100 SEED	624	728	728	728	572
	-0.04	-0.02	0.08+	1.00	-0.21++
QUALITY	624	780	728	780	624
	0.02	-0.13++	-0.04	-0.21++	1.00
OF SEED	572	676	572	624	676

TABLE 44 COMBINED ANALYSIS OF SITES IN ZONE VI FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	3207.31	42.70	108.80	150.90	280.05	1.98	4.00	66.41	1.20
ESSEX	3122.20	31.00	104.05	139.85	280.95	0.93	3.04	45.33	1.00
CALLAND	3114.05	25.35	96.80	87.40	211.20	0.77	2.67	51.99	1.00
COLUMBUS	3111.43	25.55	97.00	105.45	239.70	0.84	2.69	57.87	1.05
RANSOM	3060.84	29.70	103.90	91.00	285.15	0.71	2.80	39.01	1.00
COBB	3010.33	37.50	108.05	112.20	256.60	0.75	2.63	58.64	1.30
BRAGG	2933.17	31.10	100.45	80.10	307.00	0.58	2.42	47.23	1.20
BOSSIER	2838.99	31.80	104.60	127.55	245.25	0.90	2.76	41.72	1.00
HILL	2776.01	41.50	102.10	104.60	185.45	1.08	2.18	61.06	1.90
FORREST	2744.46	35.80	104.45	75.75	216.60	0.45	2.10	58.45	1.65
IMPROVED PELICAN	2518.47	52.40	114.70	157.70	215.85	1.12	2.62	95.68	1.60
PICKETT 71	2493.10	32.70	98.55	75.70	166.95	0.41	1.72	36.18	1.00
CLARK 63	2471.28	25.40	89.55	97.25	194.05	0.74	2.68	50.13	1.25
WILLIAMS	2466.94	24.80	87.60	121.15	163.30	0.79	1.91	44.87	1.15
WOODWORTH	2272.35	24.60	82.75	98.90	146.95	0.71	1.85	44.11	1.25
GRAND MEAN	2809.39	32.79	100.22	108.37	226.34	0.85	2.54	53.25	1.24
NUMBER EXPERIMENTS CONTRIBUTING	5	5	5	5	5	5	5	5	5
STANDARD ERROR OF VARIETY MEAN	157.99	1.27	1.58	17.22	25.54	0.21	0.35	2.87	0.19
COEFFICIENT OF VARIATION	25.15%	17.31%	7.06%	71.05%	50.47%	109.45%	61.13%	24.15%	70.38%
5% LSD VARIETY MEANS (*****=NS)	447.51	3.60	4.43	48.77	72.36	0.59	0.98	8.14	0.55
CORRELATIONS AND NUMBER OF OBSERVATIONS									
(+ - PROB=.05, ++ - PROB=.01)									
YIELD	1.00	0.05	0.12+	0.17++	0.36++	0.44++	0.51++	0.17++	-0.08
DAYS TO FLOWER	300	300	300	300	300	300	300	300	300
DAYS TO MATURITY	0.05	1.00	0.81++	0.59++	0.47++	0.25++	0.14+	0.77++	0.44++
	300	300	300	300	300	300	300	300	300
NODULE NUMBER 1	0.12+	0.81++	1.00	0.68++	0.59++	0.24++	0.21++	0.60++	0.32++
	300	300	300	300	300	300	300	300	300
NODULE NUMBER 2	0.17++	0.59++	0.68++	1.00	0.73++	0.38++	0.28++	0.54++	0.29++
	300	300	300	300	300	300	300	300	300
NODULE WEIGHT 1	0.36++	0.47++	0.59++	0.73++	1.00	0.17++	0.22++	0.43++	0.31++
	300	300	300	300	300	300	300	300	300
NODULE WEIGHT 2	0.44++	0.25++	0.24++	0.38++	0.17++	1.00	0.79++	0.29++	-0.07
	300	300	300	300	300	300	300	300	300
NODULE WEIGHT 2	0.51++	0.14+	0.21++	0.28++	0.22++	0.79++	1.00	0.18++	-0.11
	300	300	300	300	300	300	300	300	300
PLANT HEIGHT	0.17++	0.77++	0.60++	0.54++	0.43++	0.29++	0.18++	1.00	0.44++
	300	300	300	300	300	300	300	300	300
LODGING	-0.08	0.44++	0.32++	0.29++	0.31++	-0.07	-0.11	0.44++	1.00
	300	300	300	300	300	300	300	300	300
SHATTER	-0.05	-0.07	-0.05	0.15+	0.08	-0.01	0.10	-0.04	-0.01
	240	240	240	240	240	240	240	240	240
PLANTS HARVEST	-0.21++	-0.32++	-0.31++	-0.35++	-0.40++	0.00	-0.03	-0.18++	-0.19++
	300	300	300	300	300	300	300	300	300
PODS PER PLANT	0.36++	0.57++	0.42++	0.47++	0.49++	0.23++	0.16++	0.59++	0.35++
	300	300	300	300	300	300	300	300	300
100 SEED WEIGHT	0.54++	-0.23++	-0.01	0.09	0.27++	0.23++	0.34++	-0.10	-0.21++
	300	300	300	300	300	300	300	300	300
QUALITY OF SEED	0.04	-0.35++	-0.19++	-0.11	-0.12+	-0.04	-0.02	-0.24++	-0.04
	300	300	300	300	300	300	300	300	300

TABLE 44 COMBINED ANALYSIS OF SITES IN ZONE VI FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.13	267.55	24.02	21.34	1.95
ESSEX	1.00	235.90	23.40	18.37	2.65
CALLAND	1.13	243.85	16.94	22.23	3.30
COLUMBUS	1.30	250.80	20.02	20.06	2.40
RANSOM	1.06	250.10	17.16	20.95	2.50
COBB	1.00	229.60	27.33	18.80	2.45
BRAGG	1.00	256.75	17.73	21.24	2.10
BOSSIER	1.06	191.90	20.56	19.77	2.35
HILL	1.00	247.25	23.77	17.27	2.05
FORREST	1.00	249.80	22.34	17.28	2.60
IMPROVED PELICAN	1.00	216.00	37.75	16.02	1.70
PICKETT 71	1.00	224.15	19.84	18.14	2.60
CLARK 63	1.00	265.50	18.97	18.60	2.50
WILLIAMS	1.19	264.40	18.29	20.67	2.70
WOODWORTH	1.56	245.55	17.71	17.76	2.70
GRAND MEAN	1.08	242.61	21.72	19.23	2.44
NUMBER EXPERIMENTS CONTRIBUTING	4	5	5	5	5
STANDARD ERROR OF VARIETY MEAN	0.16	8.93	2.42	0.59	0.27
COEFFICIENT OF VARIATION	58.07%	16.46%	49.83%	13.65%	50.18%
5% LSD VARIETY MEANS (*****=NS)	*****	25.29	6.86	1.66	0.77

(+ - PROB=.05, +- - PROB=.01)

CORRELATIONS AND NUMBER OF OBSERVATIONS

YIELD	KG/HA	-0.05	-0.21++	0.36++	0.54++	0.04
DAYS TO FLOWER	240	-0.07	-0.32++	0.57++	-0.23++	-0.35++
DAYS TO MATURITY	240	-0.05	-0.31++	0.42++	-0.01	-0.19++
NODULE NUMBER 1	240	0.15+	-0.35++	0.47++	0.09	-0.11
NODULE NUMBER 2	240	0.08	-0.40++	0.49++	0.27++	-0.12+
NODULE WEIGHT 1	240	-0.01	0.00	0.23++	0.23++	-0.04
NODULE WEIGHT 2	240	0.10	-0.03	0.16++	0.34++	-0.02
PLANT	HEIGHT	-0.04	-0.18++	0.59++	-0.10	-0.24++
LODGING	240	-0.01	-0.19++	0.35++	-0.21++	-0.04
SHATTER	240	1.00	-0.16+	0.02	0.05	0.11
PLANTS	HARVEST	-0.16+	1.00	-0.51++	-0.01	0.03
PODS PER	PLANT	0.02	-0.51++	1.00	0.01	-0.05
100 SEED	WEIGHT	0.05	-0.01	0.01	1.00	0.24++
QUALITY	OF SEED	0.11	0.03	-0.05	0.24++	1.00
		240	300	300	300	300

TABLE 45 COMBINED ANALYSIS OF SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2371.39	46.56	112.70	93.05	110.52	0.90	1.64	55.12	1.60
RANSOM	2357.94	44.52	117.38	105.59	141.90	0.84	1.39	50.07	1.40
BOSSIER	2305.90	46.54	116.65	92.09	114.48	1.05	1.45	54.83	1.50
FORREST	2226.67	45.04	106.40	71.34	108.94	0.56	1.47	51.91	1.50
BRAGG	2204.21	46.38	115.80	91.09	130.48	0.75	1.33	57.82	1.33
PICKETT 71	2101.42	46.19	115.25	63.80	90.29	0.49	1.06	43.47	1.28
WILLIAMS	2029.52	34.44	93.62	72.57	105.50	0.42	1.40	50.25	1.28
CLARK 63	1997.41	34.90	96.93	64.32	101.50	0.38	1.37	50.88	1.30
HILL	1941.54	45.56	100.85	71.50	82.40	0.52	0.98	46.71	1.65
CALLAND	1938.00	34.37	97.93	55.25	92.17	0.42	1.33	55.05	1.35
WOODWORTH	1633.77	33.38	89.00	63.23	77.50	0.32	1.12	48.59	1.25
GRAND MEAN	2100.73	41.63	105.69	76.71	105.06	0.60	1.32	51.34	1.40
NUMBER EXPERIMENTS CONTRIBUTING	16	13	15	11	12	9	11	15	10
STANDARD ERROR OF VARIETY MEAN	112.11	1.70	2.33	8.11	10.98	0.12	0.14	2.30	0.14
COEFFICIENT OF VARIATION	42.59%	29.51%	17.43%	70.10%	72.38%	116.67%	70.02%	34.67%	64.98%
5% LSD VARIETY MEANS (*****=NS)	313.28	4.77	6.65	22.75	30.76	0.33	0.39	6.42	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)									
YIELD	1.00	0.38++	0.36++	0.27++	0.17++	0.26++	0.33++	0.33++	0.32++
DAYS TO FLOWER	704	572	660	484	528	396	484	660	440
DAYS TO MATURITY	0.38++	1.00	0.61++	0.33++	0.19++	0.57++	0.38++	0.44++	0.49++
NODULE NUMBER 1	0.36++	0.61++	1.00	0.50++	0.45++	0.54++	0.22++	0.49++	0.24++
NODULE NUMBER 2	650	528	660	440	484	352	440	660	440
NODULE WEIGHT 1	0.27++	0.38++	0.50++	1.00	0.68++	0.79++	0.50++	0.19++	0.09
NODULE WEIGHT 2	434	434	440	484	484	396	440	440	396
PLANT HEIGHT	0.17++	0.19++	0.45++	0.68++	1.00	0.49++	0.66++	0.13++	-0.03
LODGING	528	528	484	484	528	396	484	484	396
SHATTER	0.26++	0.57++	0.54++	0.79++	0.49++	1.00	0.54++	0.37++	0.20++
HARVEST	396	396	352	396	396	396	396	352	352
PODS PER PLANT	0.33++	0.38++	0.22++	0.50++	0.66++	0.54++	1.00	0.24++	0.17++
100 SEED WEIGHT	434	434	440	440	484	396	484	440	396
QUALITY OF SEED	0.33++	0.44++	0.43++	0.19++	0.13++	0.37++	0.24++	1.00	0.27++
	650	528	660	440	484	352	440	660	440
	0.32++	0.49++	0.24++	0.09	-0.03	0.20++	0.17++	0.27++	1.00
	440	396	440	396	396	352	396	440	440
	-0.02	0.06	0.25++	0.15++	0.17++	0.12+	0.08	0.21++	-0.04
	396	352	396	352	352	0.05	0.25++	0.02	0.28++
	0.21++	0.11+	0.19++	0.23++	0.40++	0.33++	-0.04	0.42++	0.15++
	550	528	660	440	484	352	440	660	440
	0.30++	0.17++	0.23++	0.03	-0.21++	0.33++	-0.04	0.42++	0.15++
	572	528	572	440	484	352	440	572	440
	0.19++	0.20++	0.35++	0.31++	0.36++	0.19++	0.32++	0.20++	0.30++
	516	484	615	440	484	352	440	616	440
	-0.22++	0.08	0.18++	-0.03	0.05	-0.07	-0.03	-0.12++	0.25++
	516	484	572	440	484	396	484	572	440

TABLE 45 COMBINED ANALYSIS OF SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.14	209.83	26.53	16.11	2.43
RANSOM	1.06	209.52	25.81	16.65	2.30
BOSSIER	1.03	172.53	33.32	15.21	2.27
FORREST	1.03	188.83	27.30	13.50	2.82
BRAGG	1.00	210.73	27.75	15.77	2.50
PICKETT 71	1.06	190.90	27.02	14.56	2.39
WILLIAMS	1.06	201.32	20.52	16.39	2.27
CLARK 63	1.03	198.77	21.35	15.81	2.16
HILL	1.00	206.18	24.80	13.96	2.23
CALLAND	1.08	195.28	19.95	17.18	2.93
WOODWORTH	1.00	196.07	20.53	15.29	2.36
GRAND MEAN	1.04	198.18	24.93	15.49	2.42
NUMBER EXPERIMENTS CONTRIBUTING	9	15	13	14	14
STANDARD ERROR OF VARIETY MEAN	0.04	6.55	1.57	0.42	0.15
COEFFICIENT OF VARIATION	23.43%	26.05%	45.42%	20.40%	47.35%
5% LSD VARIETY MEANS (*****=NS)	*****	18.63	4.41	1.18	0.43
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)					
YIELD KG/HA	-0.02	0.21++	0.33++	0.49++	-0.22++
DAYS TO FLOWER	396	550	572	616	616
DAYS TO MATURITY	0.06	0.11+	0.17++	0.20++	0.08
	352	528	528	484	484
NODULE NUMBER 1	0.25++	0.19++	0.23++	0.36++	0.18++
	396	660	572	616	572
NODULE NUMBER 2	0.15++	0.23++	0.03	0.31++	-0.03
	352	440	440	440	440
NODULE WEIGHT 1	0.17++	0.40++	-0.21++	0.36++	0.05
	352	434	484	484	484
NODULE WEIGHT 2	0.12+	0.05	0.33++	0.19++	-0.07
	352	352	352	396	396
PLANT HEIGHT	0.08	0.25++	-0.04	0.32++	-0.03
	352	440	440	440	484
LODGING	0.21++	0.02	0.42++	0.20++	-0.12++
	396	650	572	616	572
SHATTER	-0.04	0.28++	0.15++	0.30++	0.25++
	396	440	440	440	440
PLANTS HARVEST	1.00	-0.06	0.14++	0.12+	0.07
	396	396	396	396	396
PODS PER PLANT	-0.06	1.00	-0.47++	0.30++	0.24++
	396	660	572	616	572
100 SEED WEIGHT	0.14++	-0.47++	1.00	-0.04	-0.17++
	396	572	572	528	484
QUALITY OF SEED	0.12+	0.30++	-0.04	1.00	0.06
	396	616	528	616	572
	0.07	0.24++	-0.17++	0.06	1.00
	396	572	484	572	616

TABLE 46 COMBINED ANALYSIS OF SITES IN ZONE X FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
WILLIAMS	3324.01	39.31	118.00	112.38	253.75	0.67	1.85	91.08	1.53
AMSOY 71	3130.51	36.41	114.81	81.63	187.75	0.21	1.44	88.83	2.38
WOODWORTH	3084.52	40.25	110.88	83.75	180.13	0.49	1.28	85.18	1.56
BEESON	3081.44	35.41	114.66	79.25	138.50	0.34	1.47	87.44	2.13
CALLAND	3025.13	38.03	121.97	89.00	167.00	0.43	1.66	98.56	2.84
WELLS	3007.30	35.88	112.47	69.63	156.38	0.34	1.64	80.04	1.34
CUTLER 71	3002.66	42.97	124.94	159.63	286.25	1.45	1.98	99.80	2.19
HODGSON	2944.33	34.00	101.84	100.50	175.13	0.32	1.69	70.40	1.22
CORSOY	2928.50	35.66	109.81	110.25	222.50	0.33	2.41	76.03	1.84
CLARK 63	2868.03	40.34	122.41	112.25	210.13	0.45	1.44	94.17	2.34
HARK	2799.04	34.53	111.41	72.38	169.88	0.25	1.57	81.58	1.81
STEELE	2756.76	35.25	101.34	95.00	195.00	0.53	1.61	71.87	1.50
GRAND MEAN	2996.02	37.42	113.71	97.22	195.20	0.48	1.67	85.42	1.89
NUMBER EXPERIMENTS CONTRIBUTING	8	8	3	2	2	2	2	8	8
STANDARD ERROR OF VARIETY MEAN	132.01	0.86	1.84	16.93	36.98	0.26	0.39	2.28	0.22
COEFFICIENT OF VARIATION	24.92	13.07%	9.13%	49.25%	53.58%	151.86%	65.38%	15.11%	64.41%
5% LSD VARIETY MEANS (*****=NS)	*****	2.44	5.17	*****	*****	*****	*****	6.42	0.61
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)									
YIELD	1.00	-0.37++	-0.08	0.44++	0.51++	-0.19	0.19	0.63++	0.49++
DAYS TO FLOWER	384	384	384	96	96	96	96	384	384
DAYS TO MATURITY	-0.37++	1.00	0.57++	-0.30++	-0.39++	0.41++	-0.03	-0.23++	-0.22++
NODULE NUMBER 1	334	334	384	96	96	96	96	384	384
NODULE NUMBER 2	-0.08	0.57++	1.00	-0.06	-0.15	0.37++	0.02	0.36++	0.14++
NODULE HEIGHT 1	384	384	384	96	96	96	96	384	384
NODULE HEIGHT 2	0.44++	-0.30++	-0.06	1.00	0.51++	0.20+	0.26+	0.43++	0.39++
PLANT HEIGHT	96	96	96	96	96	96	96	96	96
LODGING	0.51++	-0.39++	-0.15	0.51++	1.00	0.11	0.65++	0.46++	0.44++
SHAFTER	-0.19	0.41++	0.37++	0.20+	0.11	1.00	0.27++	-0.13	-0.19
PLANTS HARVEST	0.19	-0.03	0.02	0.26+	0.65++	0.27++	1.00	0.12	0.12
PODS PER PLANT	96	96	96	96	96	96	96	96	96
100 SEED WEIGHT	0.63++	-0.23++	0.36++	0.43++	0.46++	-0.13	0.01	1.00	0.57++
QUALITY OF SEED	384	384	384	96	96	96	96	384	384
	0.49++	384	384	96	96	96	96	384	384
	-0.23++	384	384	96	96	96	96	384	384
	0.14++	384	384	96	96	96	96	384	384
	0.39++	384	384	96	96	96	96	384	384
	0.43++	384	384	96	96	96	96	384	384
	0.46++	384	384	96	96	96	96	384	384
	-0.13	384	384	96	96	96	96	384	384
	0.12	384	384	96	96	96	96	384	384
	0.57++	384	384	96	96	96	96	384	384
	1.00	384	384	96	96	96	96	384	384
	0.63++	384	384	96	96	96	96	384	384
	0.33++	384	384	96	96	96	96	384	384
	0.36	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96	96	96	96	384	384
	0.09	384	384	96	96	96	96	384	384
	0.25++	384	384	96					

TABLE 46 COMBINED ANALYSIS OF SITES IN ZONE X FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
WILLIAMS	1.13	136.14	38.12	19.27	1.78
AMSOY 71	1.03	175.89	38.53	18.40	2.72
WOODWORTH	1.13	184.96	37.00	16.69	1.97
BEESON	1.06	178.50	36.38	18.90	2.84
CALLAND	1.03	179.14	39.54	18.03	2.81
WELLS	1.00	193.86	38.20	16.18	2.88
CUTLER 71	1.16	175.93	38.39	18.55	2.38
HODGSON	1.00	138.54	37.93	17.21	1.97
CORSOY	1.06	178.46	45.09	16.55	2.53
CLARK 63	1.13	131.29	36.58	16.38	2.34
HARK	1.03	157.50	39.97	17.34	2.47
STEELE	1.00	190.50	34.32	17.94	2.09
GRAND MEAN	1.06	130.33	38.34	17.62	2.40
NUMBER EXPERIMENTS CONTRIBUTING	8	7	5	7	8
STANDARD ERROR OF VARIETY MEAN	0.05	5.65	2.43	0.40	0.18
COEFFICIENT OF VARIATION	28.55%	16.52%	28.40%	12.09%	42.55%
5% LSD VARIETY MEANS (****=NS)	*****	15.94	*****	1.14	0.51

CORRELATIONS AND NUMBER OF OBSERVATIONS					
(+ - PROB=.05, ++ - PROB=.01)					
YIELD	KG/HA	0.42++	0.26++	0.40++	-0.12+
DAYS TO FLOWER	384	336	240	336	384
DAYS TO MATURITY	0.09	-0.26++	-0.03	-0.24++	0.07
NODULE NUMBER 1	384	336	240	336	384
NODULE NUMBER 2	0.21++	0.27++	-0.39++	0.27++	0.23++
NODULE WEIGHT 1	384	336	240	336	384
NODULE WEIGHT 2	0.12	-0.05	-0.03	0.48++	-0.19
PLANT HEIGHT	96	-0.08	-0.06	0.43++	-0.12
LODGING	96	-0.02	0.09	-0.22+	-0.27++
SHATTER	96	-0.07	0.05	0.04	-0.09
PLANTS HARVEST	96	0.63++	-0.25++	0.64++	-0.02
PODS PER PLANT	384	336	240	336	384
100 SEED WEIGHT	0.05	0.33++	0.09	0.39++	0.16++
QUALITY OF SEED	334	336	240	336	384
	1.00	0.27++	-0.33++	0.13+	0.12+
	384	336	240	336	384
	0.27++	1.00	-0.53++	0.63++	0.01
	336	336	240	288	336
	-0.33++	-0.58++	1.00	-0.43++	-0.08
	240	240	240	240	240
	0.13+	0.53++	-0.43++	1.00	0.05
	336	238	240	336	336
	0.12+	0.01	-0.03	0.05	1.00
	384	336	240	336	384

TABLE 47 COMBINED ANALYSIS OF ASIAN SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2337.08	29.81	97.53	92.02	177.73	0.45	1.89	32.05	1.09
FORREST	2288.16	28.60	88.56	86.15	144.77	0.35	1.43	33.71	1.09
IMPROVED PELICAN	2175.29	33.79	97.73	89.77	191.06	0.37	1.61	70.59	1.66
WILLIAMS	2173.91	26.67	86.85	99.62	153.44	0.34	1.15	41.40	1.05
BRAGG	2138.06	29.75	93.67	83.04	172.79	0.30	1.56	37.86	1.25
BOSSIER	2089.49	30.46	92.94	99.81	195.21	0.45	2.28	34.06	1.09
CLARK 63	2032.65	28.58	84.73	76.96	140.56	0.43	1.46	44.50	1.18
HILL	1988.16	30.29	90.03	85.52	139.33	0.33	1.31	35.47	1.18
JUPITER	1920.29	37.35	114.67	109.21	215.65	0.43	1.71	64.29	1.70
GRAND MEAN	2127.01	30.59	94.10	91.34	170.06	0.38	1.60	43.77	1.26
NUMBER EXPERIMENTS CONTRIBUTING	12	12	12	12	12	10	10	12	11
STANDARD ERROR OF VARIETY MEAN	121.37	0.87	1.78	7.38	15.03	0.06	0.25	2.29	0.15
COEFFICIENT OF VARIATION	39.53%	19.63%	13.09%	56.00%	61.25%	94.44%	99.03%	36.26%	79.83%
5% LSD VARIETY MEANS (****=NS)	*****	2.44	5.00	*****	42.25	*****	*****	6.44	0.43
CORRELATIONS AND NUMBER OF OBSERVATIONS									
(+ - PROB=.05, + + - PROB=.01)									
YIELD	KG/HA	1.00	0.00	-0.09	0.44++	0.07	0.16++	0.50++	0.08
DAYS TO FLOWER	1.00	0.00	0.46++	0.06	0.15++	0.16++	0.14+	0.43++	0.38++
DAYS TO MATURITY	0.44++	0.46++	1.00	-0.08	0.12+	0.24++	0.29++	0.51++	0.34++
NODULE NUMBER 1	-0.09	0.06	-0.08	1.00	0.67++	0.05	-0.11+	0.42	0.396
NODULE NUMBER 2	0.16++	0.15++	0.12+	0.67++	1.00	0.07	0.16++	0.22++	-0.03
NODULE WEIGHT 1	0.07	0.16++	0.24++	0.05	0.07	1.00	0.60++	0.10	0.11+
NODULE WEIGHT 2	0.12+	0.14+	0.29++	-0.11+	0.16++	0.60++	1.00	0.12+	0.12+
PLANT HEIGHT	0.50++	0.43++	0.360	0.360	0.360	0.360	0.360	0.360	0.324
LODGING	0.08	0.38++	0.432	0.432	0.432	0.10	0.12+	1.00	0.43++
SHATTER	-0.01	-0.06	0.396	0.396	0.396	0.324	0.324	0.396	1.00
PLANTS HARVEST	0.30++	-0.10+	0.360	0.360	0.360	0.288	0.288	0.360	0.11+
PODS PER PLANT	0.47++	0.24++	0.432	0.432	0.432	0.360	0.360	0.432	0.05
100 SEED WEIGHT	0.68++	-0.09	0.432	0.432	0.432	0.360	0.360	0.432	0.20++
QUALITY OF SEED	-0.18++	0.23++	0.432	0.432	0.432	-0.04	-0.04	0.27++	-0.01
	396	396	396	396	396	-0.13+	-0.27++	-0.00	0.23++
						324	324	396	360

TABLE 47 COMBINED ANALYSIS OF ASIAN SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.10	235.67	19.10	17.77	1.66
FORREST	1.00	231.67	20.46	14.15	2.14
IMPROVED PELICAN	1.05	234.54	29.93	13.72	1.36
WILLIAMS	1.03	231.77	16.83	17.78	1.48
BRAGG	1.03	228.00	16.90	16.97	1.59
BOSSIER	1.00	215.10	20.35	16.11	1.75
CLARK 63	1.05	245.94	19.98	16.34	1.45
HILL	1.00	226.58	22.13	15.07	1.57
JUPITER	1.10	222.58	24.09	16.99	2.34
GRAND MEAN	1.04	230.21	21.09	16.10	1.70
NUMBER EXPERIMENTS CONTRIBUTING	10	12	12	12	11
STANDARD ERROR OF VARIETY MEAN	0.05	6.85	1.44	0.37	0.19
COEFFICIENT OF VARIATION	28.03%	20.51%	47.40%	15.76%	72.63%
5% LSD VARIETY MEANS (****=NS)	*****	*****	4.06	1.03	0.53
CORRELATIONS AND NUMBER OF OBSERVATIONS					
(+ - PROB=-.05, ++ - PROB=-.01)					
YIELD K3/HA	-0.01	0.30++	0.47++	0.68++	-0.18++
DAYS TO FLOWER	-0.06	-0.10+	0.24++	-0.09	0.23++
DAYS TO MATURITY	0.20++	0.19++	0.40++	0.40++	0.09
NODULE NUMBER 1	-0.03	-0.09	-0.20++	0.16++	0.07
NODULE NUMBER 2	-0.02	-0.06	-0.02	0.33++	-0.09
NODULE WEIGHT 1	0.01	0.21++	0.01	-0.04	-0.13+
NODULE WEIGHT 2	0.03	0.26++	0.07	-0.00	-0.27++
PLANT HEIGHT	0.06	0.21++	0.53++	0.27++	-0.00
LODGING	0.11+	0.05	0.20++	-0.01	0.23++
SHATTER	1.00	0.17++	0.03	0.01	0.19++
PLANTS HARVEST	0.17++	1.00	0.05	0.08	-0.01
PODS PER PLANT	0.03	0.05	1.00	0.20++	0.03
100 SEED WEIGHT	0.01	0.08	0.20++	1.00	-0.20++
QUALITY OF SEED	0.19++	-0.01	0.03	-0.20++	1.00
	324	396	396	396	396

TABLE 48 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2485.66	31.92	96.96	179.50	388.80	0.60	3.91	49.26	1.71
BRAGG	2411.13	27.33	96.04	148.44	458.60	0.44	3.50	48.36	1.58
RANSOM	2320.48	27.04	99.54	143.69	402.00	0.42	3.11	43.95	1.21
CALLAND	2314.75	24.08	91.33	72.56	274.95	0.22	2.82	71.09	2.04
PICKETT 71	2278.38	27.33	96.92	80.50	245.15	0.26	2.60	36.93	1.08
FORREST	2269.18	29.42	95.17	139.81	367.50	0.31	2.93	47.89	1.38
COBB	2204.59	28.58	102.38	149.31	369.90	0.44	3.68	49.27	1.38
WILLIAMS	2161.52	23.88	88.58	130.69	333.90	0.32	2.92	61.30	1.63
BOSSIER	2140.25	25.92	99.17	128.81	387.50	0.50	3.84	39.83	1.29
CUTLER 71	2033.47	23.88	91.42	109.94	313.60	0.22	2.73	67.55	2.21
CLARK 63	2006.35	24.13	89.96	99.06	275.35	0.19	2.72	65.50	2.29
HILL	1882.02	31.75	89.88	119.75	253.05	0.29	2.11	44.15	1.83
WOODWORTH	1861.01	23.67	85.00	105.69	255.25	0.22	2.42	58.05	1.88
IMPROVED PELICAN	1526.76	37.25	109.33	204.13	347.20	0.82	2.88	97.12	2.71
GRAND MEAN	2135.40	27.58	95.12	128.99	333.77	0.38	3.01	55.73	1.73
NUMBER EXPERIMENTS CONTRIBUTING	6	6	6	4	5	4	4	6	6
STANDARD ERROR OF VARIETY MEAN	232.79	0.89	3.29	21.02	35.44	0.11	0.35	3.83	0.27
COEFFICIENT OF VARIATION	53.41%	15.73%	16.93%	65.18%	47.49%	119.55%	45.94%	33.69%	76.77%
5% LSD VARIETY MEANS (*****NS)	*****	2.50	9.29	60.12	100.59	0.32	0.99	10.83	0.77
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, +- - PROB=.01)									
YIELD	1.00	0.26++	0.28++	0.34++	0.09	0.12	0.13	0.12+	-0.14++
DAYS TO FLOWER	336	336	336	224	280	224	224	336	336
DAYS TO MATURITY	0.26++	1.00	0.57++	0.47++	0.10	0.52++	0.33++	0.15++	0.01
NODULE NUMBER 1	336	336	336	224	280	224	224	336	336
NODULE NUMBER 2	0.28++	0.57++	1.00	0.33++	0.50++	0.34++	0.72++	-0.01	-0.32++
NODULE WEIGHT 1	336	336	336	224	280	224	224	336	336
NODULE WEIGHT 2	0.34++	0.47++	0.33++	1.00	0.42++	0.67++	0.37++	0.17+	-0.04
PLANT HEIGHT	224	224	224	224	224	224	168	224	224
LODGING	0.09	0.10	0.50++	0.42++	1.00	0.25++	0.64++	0.04	-0.27++
SHAFTER	280	280	280	224	280	224	224	280	280
PLANTS HARVEST	0.12	0.52++	0.34++	0.67++	0.25++	1.00	0.39++	0.04	-0.01
PODS PER PLANT	0.13	0.24	0.72++	0.37++	0.64++	0.39++	1.00	-0.20++	-0.44++
100 SEED WEIGHT	224	224	224	168	224	168	224	224	224
QUALITY OF SEED	0.12+	0.15++	-0.01	0.17+	0.04	0.04	-0.20++	1.00	0.46++
	336	336	336	224	280	224	224	336	336
	-0.14++	0.01	-0.32++	-0.04	-0.27++	-0.01	-0.44++	0.46++	1.00
	0.07	0.15++	0.20++	0.13+	0.05	0.10	0.00	0.01	0.04
	336	336	336	224	280	224	224	336	336
	0.11+	-0.06	-0.41++	-0.09	-0.54++	0.02	-0.22++	-0.13+	0.29++
	0.29++	0.06	0.10	0.27++	0.49++	-0.20++	-0.06	0.37++	-0.16++
	280	280	280	168	224	168	168	280	280
	0.72++	0.25++	0.57++	0.40++	0.01	0.29++	0.58++	-0.24++	-0.00
	230	280	280	168	224	168	168	280	280
	-0.32++	-0.04	0.24++	-0.04	0.31++	0.19++	0.23++	-0.02	-0.01
	336	336	336	224	280	224	224	336	336

TABLE 48 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.00	227.50	23.82	15.67	3.63
BRAGG	1.00	219.96	24.71	15.90	3.33
RANSOM	1.00	226.71	22.41	16.87	4.00
CALLAND	1.00	219.75	24.73	18.23	3.54
PICKETT 71	1.00	206.88	20.76	15.35	3.21
FORREST	1.00	219.46	26.89	13.86	3.71
COBB	1.33	196.17	28.57	15.06	3.38
WILLIAMS	1.00	223.25	19.42	18.28	2.96
BOSSIER	1.00	195.29	24.33	15.39	3.29
CUTLER 71	1.00	214.54	21.23	19.15	3.17
CLARK 63	1.00	206.54	20.18	16.74	2.92
HILL	1.00	212.96	25.78	15.31	3.25
WOODWORTH	1.00	215.71	22.43	16.12	3.21
IMPROVED PELICAN	1.04	168.96	36.44	13.24	3.00
GRAND MEAN	1.03	210.98	24.41	16.08	3.33
NUMBER EXPERIMENTS CONTRIBUTING	6	6	5	5	6
STANDARD ERROR OF VARIETY MEAN	0.09	8.16	2.47	0.77	0.33
COEFFICIENT OF VARIATION	42.43%	18.94%	45.33%	21.49%	48.64%
5% LSD VARIETY MEANS (*****=NS)	*****	23.04	7.02	2.19	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS					
(+ - PROB=.05, ++ - PROB=.01)					
YIELD	0.07	0.11+	0.29++	0.72++	-0.32++
KG/HA	336	336	280	280	336
DAYS TO FLOWER	0.15++	-0.06	0.06	0.25++	-0.04
	336	336	280	280	336
DAYS TO MATURITY	0.20++	-0.41++	0.10	0.57++	0.24++
	336	336	280	280	336
NODULE NUMBER 1	0.13+	-0.09	0.27++	0.40++	-0.04
	224	224	168	168	224
NODULE NUMBER 2	0.05	-0.54++	0.49++	0.01	0.31++
	230	280	224	224	280
NODULE WEIGHT 1	0.10	0.02	-0.20++	0.29++	0.19++
	224	224	168	168	224
NODULE WEIGHT 2	0.00	-0.22++	-0.06	0.58++	0.23++
	224	224	168	168	224
PLANT	0.01	-0.13+	0.37++	-0.00	-0.02
HEIGHT	336	336	280	280	336
LOGGING	0.04	0.29++	-0.15++	-0.24++	-0.01
	336	336	280	280	336
SHATTER	1.00	0.00	-0.00	-0.01	0.01
	336	336	280	280	336
PLANTS	0.00	1.00	-0.67++	0.22++	-0.28++
HARVEST	336	336	280	280	336
PODS PER	-0.00	-0.67++	1.00	-0.07	-0.09
PLANT	280	280	280	280	280
100 SEED	-0.01	0.22++	-0.07	1.00	-0.36++
WEIGHT	280	280	280	280	280
QUALITY	0.01	-0.28++	-0.09	-0.36++	1.00
OF SEED	336	336	280	280	336

TABLE 49 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
WILLIAMS	1963.50	30.75	92.21	59.15	97.30	0.28	1.08	37.04	1.15
DAVIS	1936.93	38.13	103.00	64.10	115.50	0.26	1.47	42.87	1.55
COLUMBUS	1919.26	31.50	96.33	70.65	130.75	0.35	1.41	42.24	1.25
FORREST	1913.86	35.79	101.25	50.75	97.90	0.20	1.24	45.26	1.50
CLARK 63	1880.94	30.79	95.96	46.25	75.85	0.16	0.84	40.04	1.30
CALLAND	1855.39	30.46	97.50	49.20	96.15	0.25	0.97	41.37	1.30
RANSOM	1841.51	34.04	103.13	74.60	152.15	0.43	1.32	36.40	1.15
BOSSIER	1789.30	33.83	101.96	59.35	108.70	0.33	1.39	33.14	1.05
HILL	1771.54	37.88	95.75	54.80	73.30	0.23	0.87	39.48	1.75
WOODWORTH	1755.43	31.00	88.42	47.70	72.65	0.23	0.81	37.99	1.20
PICKETT 71	1730.50	34.58	100.83	45.45	79.90	0.19	0.88	30.85	1.00
BAGG	1549.51	34.21	101.75	58.35	128.95	0.30	1.30	37.22	1.05
GRAND MEAN	1825.71	33.58	98.13	56.70	102.43	0.27	1.13	38.66	1.27
NUMBER EXPERIMENTS CONTRIBUTING	6	6	5	5	5	4	5	6	5
STANDARD ERROR OF VARIETY MEAN	120.06	1.52	3.50	8.53	16.04	0.06	0.17	2.42	0.22
COEFFICIENT OF VARIATION	32.22%	22.15%	17.43%	67.30%	70.03%	83.06%	68.88%	30.65%	75.85%
5% LSD VARIETY MEANS (*****=NS)	*****	4.30	*****	*****	45.71	*****	0.50	6.85	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, +- - PROB=.01)									
YIELD	1.00	-0.20++	0.22++	-0.31++	-0.09	-0.59++	0.23++	0.69++	0.27++
DAYS TO FLOWER	238	238	283	240	240	192	240	288	240
DAYS TO MATURITY	238	238	283	240	240	192	240	288	0.49++
NODULE NUMBER 1	238	0.43++	1.00	0.09	0.33++	-0.09	0.37++	0.35++	0.24++
NODULE NUMBER 2	240	0.40++	0.03	1.00	0.66++	0.89++	0.57++	288	240
NODULE WEIGHT 1	240	0.10	0.33++	0.66++	1.00	192	240	240	0.14+
NODULE WEIGHT 2	192	0.39++	-0.03	0.89++	0.59++	192	240	240	0.02
NODULE WEIGHT 2	240	0.20++	0.37++	0.57++	0.81++	192	192	-0.64++	-0.22++
PLANT	240	0.00	0.35++	-0.25++	-0.02	-0.64++	0.21++	240	0.16+
HEIGHT	288	0.59++	0.27++	0.14+	0.02	192	240	1.00	0.50++
LODGING	240	0.27++	0.49++	0.14+	0.02	192	240	288	240
SHATTER	240	0.00	0.00	0.00	0.00	192	240	240	1.00
PLANTS	192	0.13+	0.32++	0.49++	0.49++	192	192	192	0.00
HARVEST	288	0.49++	0.07	-0.41++	-0.13	-0.50++	0.38++	288	0.38++
PODS PER	288	0.49++	0.52++	0.52++	0.41++	192	240	288	240
PLANT	288	0.52++	0.31++	0.31++	0.29++	192	240	288	0.11
100 SEED	240	0.58++	0.57++	0.57++	0.13	192	240	288	0.29++
QUALITY OF SEED	240	0.38++	0.57++	0.25++	0.13	192	240	240	0.41++
									240

TABLE 49 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
WILLIAMS	1.00	227.00	14.46	16.28	2.40
DAVIS	1.00	232.08	17.13	15.07	3.00
COLUMBUS	1.00	211.33	15.43	15.62	2.50
FORREST	1.00	218.67	21.24	13.78	2.85
CLARK 63	1.00	226.21	14.96	15.21	2.45
CALLAND	1.00	222.53	13.73	15.58	2.75
RANSOM	1.00	233.21	17.06	15.31	2.40
BOSSIER	1.00	194.46	20.53	13.77	2.50
HILL	1.00	222.46	19.97	13.60	2.90
WOODWORTH	1.00	232.21	13.40	14.56	2.35
PICKETT 71	1.00	208.96	18.72	13.98	2.65
BRAgg	1.00	231.13	18.80	15.06	2.90
GRAND MEAN	1.00	221.59	17.12	14.90	2.64
NUMBER EXPERIMENTS CONTRIBUTING	4	6	6	5	5
STANDARD ERROR OF VARIETY MEAN	0.00	11.33	1.93	0.56	0.26
COEFFICIENT OF VARIATION	0.00%	25.14%	55.14%	15.84%	43.77%
5% LSD VARIETY MEANS (*****=NS)	0.00	*****	5.46	1.60	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS					
(+ - PROB=.05, +- - PROB=.01)					
YIELD KG/HA	0.00	0.13+	0.43++	0.62++	-0.38++
DAYS TO FLOWER	192	288	283	240	240
DAYS TO MATURITY	0.00	0.32++	-0.07	-0.09	0.68++
NODULE NUMBER 1	192	288	283	240	240
NODULE NUMBER 2	0.00	0.35++	0.52++	0.31++	0.57++
NODULE WEIGHT 1	192	238	283	240	240
NODULE WEIGHT 2	0.00	0.49++	-0.41++	-0.01	0.25++
PLANT HEIGHT	192	240	240	240	240
LODGING	0.00	0.49++	-0.13	0.29++	0.13
SHATTER	192	240	240	240	240
PLANTS HARVEST	0.00	0.37++	-0.50++	-0.32++	0.15+
PODS PER PLANT	192	192	192	192	192
100 SEED WEIGHT	0.00	0.38++	0.02	0.38++	0.05
QUALITY OF SEED	192	240	240	240	240
SHATTER	1.00	0.20++	0.50++	0.59++	0.02
PLANTS HARVEST	0.00	0.38++	0.11	0.29++	0.41++
PODS PER PLANT	192	240	240	240	240
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	192	192	192	192	192
SHATTER	0.00	1.00	-0.13++	0.48++	0.30++
PLANTS HARVEST	192	288	288	240	240
PODS PER PLANT	0.00	-0.18++	1.00	0.11	-0.01
100 SEED WEIGHT	192	238	283	240	240
QUALITY OF SEED	0.00	0.48++	0.11	1.00	0.01
SHATTER	192	240	240	240	240
PLANTS HARVEST	0.00	0.30++	-0.01	0.01	1.00
PODS PER PLANT	192	240	240	240	240

TABLE 50 COMBINED ANALYSIS OF SRI LANKAN SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2725.65	29.58	101.20	88.73	185.38	0.49	2.17	33.73	1.11
FORREST	2610.43	28.03	91.18	87.23	149.80	0.40	1.59	35.08	1.00
WILLIAMS	2537.18	26.00	88.75	92.20	164.03	0.36	1.31	45.58	1.06
BRAGG	2477.41	29.40	97.30	82.12	185.63	0.33	1.81	40.62	1.31
BOSSIER	2418.17	30.75	96.43	96.37	209.25	0.50	2.67	36.53	1.11
IMPROVED PELICAN	2415.31	33.45	99.58	91.23	198.98	0.39	1.79	75.21	1.58
CLARK 63	2351.20	28.50	86.65	78.45	154.10	0.50	1.72	47.90	1.11
HILL	2287.52	29.75	91.75	83.25	144.38	0.37	1.50	37.49	1.11
JUPITER	2171.20	37.63	116.70	108.23	215.78	0.47	1.92	68.91	1.83
GRAND MEAN	2443.79	30.34	96.61	90.31	178.70	0.42	1.83	46.78	1.25
NUMBER EXPERIMENTS CONTRIBUTING	10	10	10	10	10	8	8	10	9
STANDARD ERROR OF VARIETY MEAN	139.58	1.00	1.99	8.40	17.20	0.07	0.31	2.57	0.17
COEFFICIENT OF VARIATION	36.12%	20.90%	13.01%	58.85%	60.88%	94.44%	95.26%	34.74%	79.94%
5% LSD VARIETY MEANS (****=NS)	*****	2.83	5.60	*****	48.50	*****	*****	7.25	0.47

CORRELATIONS AND NUMBER OF OBSERVATIONS

(+ - PROB=.05, ++ - PROB=.01)

YIELD	KG/HA	1.00	0.08	0.31++	-0.08	0.09	-0.05	-0.05	0.39++	0.13+
DAYS TO FLOWER		0.08	1.00	0.50++	0.02	0.17++	0.14+	0.18++	0.50++	0.36++
DAYS TO MATURITY		0.31++	0.50++	1.00	-0.12+	0.03	0.16++	0.23++	0.41++	0.39++
NODULE NUMBER 1		-0.08	0.02	-0.12+	1.00	0.71++	0.03	-0.10	0.03	-0.11
NODULE NUMBER 2		0.09	0.17++	0.03	0.71++	1.00	0.03	0.11	0.17++	-0.02
NODULE WEIGHT 1		-0.05	0.14+	0.16++	0.03	0.03	1.00	0.59++	0.02	0.08
NODULE WEIGHT 2		-0.05	0.13++	0.23++	-0.10	0.11	0.59++	1.00	0.02	0.14+
PLANT HEIGHT		0.39++	0.50++	0.41++	0.03	0.17++	0.02	0.02	1.00	0.47++
LODGING		0.13+	0.36++	0.39++	-0.11	-0.02	0.08	0.14+	0.47++	1.00
SHATTER		-0.05	-0.07	0.20++	-0.04	-0.03	-0.01	0.01	0.04	0.10
PLANTS HARVEST		-0.08	-0.15++	-0.11+	-0.14++	-0.20++	0.09	0.14+	-0.02	0.02
PODS PER PLANT		0.40++	0.27++	0.33++	-0.20++	-0.09	-0.04	0.01	0.47++	0.21++
100 SEED WEIGHT		0.58++	0.01	0.33++	0.22++	0.31++	-0.15+	-0.16++	0.15++	0.05
QUALITY OF SEED		0.04	0.13+	0.13++	0.03	-0.05	-0.12+	-0.22++	0.11+	0.22++
		360	360	360	360	360	288	360	360	324

TABLE 50 COMBINED ANALYSIS OF SRI LANKAN SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.11	254.75	20.60	18.83	1.55
FORREST	1.00	248.90	21.17	14.51	2.00
WILLIAMS	1.03	251.28	18.51	18.63	1.35
BRAGG	1.03	245.55	17.99	17.69	1.50
BOSSIER	1.00	230.98	21.86	16.78	1.60
IMPROVED PELICAN	1.06	253.30	30.25	14.32	1.25
CLARK 63	1.06	267.63	21.81	17.06	1.33
HILL	1.00	246.35	23.63	15.65	1.43
JUPITER	1.11	244.93	24.72	17.79	2.25
GRAND MEAN	1.04	249.29	22.29	16.81	1.58
NUMBER EXPERIMENTS CONTRIBUTING	9	10	10	10	10
STANDARD ERROR OF VARIETY MEAN	0.05	7.71	1.63	0.38	0.20
COEFFICIENT OF VARIATION	29.47%	19.55%	47.53%	14.33%	81.87%
5% LSD VARIETY MEANS (*****=NS)	*****	*****	4.72	1.07	0.58
CORRELATIONS AND NUMBER OF OBSERVATIONS					
(+ - PROB=.05, ++ - PROB=.01)					
YIELD	KG/HA				
DAYS TO FLOWER					
DAYS TO MATURITY					
NODULE NUMBER 1					
NODULE NUMBER 2					
NODULE WEIGHT 1					
NODULE WEIGHT 2					
PLANT	HEIGHT				
LDGING					
SHATTER					
PLANTS	HARVEST				
PODS PER	PLANT				
100 SEED	WEIGHT				
QUALITY	OF SEED				

TABLE 51 COMBINED ANALYSIS OF PAKISTAN SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
RANSOM	2526.34	43.38	107.33	8.50	8.25	0.00	0.00	53.73	0.00
BRAGG	2379.75	44.25	105.88	13.00	10.88	0.00	0.00	60.24	0.00
BOSSIER	2343.39	44.13	106.00	5.25	6.50	0.00	0.00	57.04	0.00
DAVIS	2122.92	43.63	101.00	8.75	13.75	0.00	0.37	44.16	0.00
PICKETT 71	2113.13	42.50	105.50	9.00	8.63	0.00	0.00	43.55	0.00
HAMPTON 266A	1978.83	47.13	108.31	10.25	9.63	0.00	0.00	50.44	0.00
FORREST	1827.03	42.00	94.19	5.75	15.63	0.00	0.91	41.48	0.00
ESSEX	1772.95	39.00	92.33	7.50	20.00	0.00	0.89	36.61	0.00
WILLIAMS	1719.41	35.25	85.69	12.50	24.00	0.00	1.29	54.63	0.00
CALLAND	1689.09	38.25	90.06	8.75	18.25	0.00	1.18	60.32	0.00
CLARK 63	1578.44	35.50	88.06	9.00	22.38	0.00	1.12	51.68	0.00
WOODWORTH	1392.78	35.50	83.69	11.25	17.38	0.00	0.94	52.08	0.00
CUTLER 71	1385.28	35.75	87.31	13.50	23.50	0.00	0.84	46.44	0.00
HILL	1268.80	42.38	87.06	14.50	19.13	0.00	0.57	35.45	0.00
GRAND MEAN	1864.15	40.62	95.89	9.82	15.56	0.00	0.58	49.13	0.00
NUMBER EXPERIMENTS CONTRIBUTING	4	2	4	1	2	0	1	4	0
STANDARD ERROR OF VARIETY MEAN	141.35	1.64	1.87	3.06	5.54	0.00	0.28	3.36	0.00
COEFFICIENT OF VARIATION	30.33%	11.44%	7.79%	62.38%	100.70%	0.00%	96.52%	27.33%	0.00%
5% LSD VARIETY MEANS (****=NS)	404.34	5.02	5.34	*****	*****	0.00	0.80	9.60	0.00
CORRELATIONS AND NUMBER OF OBSERVATIONS									
(+ - PROB=.05, ++ - PROB=.01)									
YIELD	1.00	-0.16	0.57++	0.01	-0.37++	0.00	-0.38++	0.21++	0.00
DAYS TO FLOWER	224	112	224	56	112	0	56	224	0
DAYS TO MATURITY	-0.16	1.00	0.20+	-0.07	-0.03	0.00	-0.62++	0.39++	0.00
NODULE NUMBER 1	0.57++	0.20+	1.00	56	112	0	56	112	0
NODULE NUMBER 2	0.01	-0.07	-0.11	1.00	0.97++	0.00	-0.66++	0.20++	0.00
NODULE WEIGHT 1	56	56	56	56	56	0	56	56	0
NODULE WEIGHT 2	-0.37++	-0.03	-0.55++	0.97++	1.00	0.00	0.91++	0.19+	0.00
PLANT HEIGHT	112	112	112	56	112	0	56	112	0
LODGING	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
SHATTER	0	0	0	0	0	0	0	0	0
PLANTS HARVEST	0.22++	0.46++	-0.66++	0.00	0.91++	0.00	1.00	0.18	0.00
PODS PER PLANT	224	112	224	56	56	0	56	56	0
100 SEED WEIGHT	0.60++	-0.33++	0.54++	0.19	0.19+	0.00	0.18	1.00	0.00
QUALITY OF SEED	-0.07	0.05	0.00	56	112	0	56	224	0
	-0.15+	-0.32+	-0.11	0.00	0.12	0.00	0.26	0.11	0.00
	168	56	168	0	56	0	56	168	0

TABLE 51 COMBINED ANALYSIS OF PAKISTAN SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
RANSOM	0.00	159.50	43.63	16.76	2.00
BRAGG	0.00	157.63	49.88	13.90	2.08
BOSSIER	0.00	133.75	68.50	14.32	2.00
DAVIS	0.00	146.81	47.38	14.62	2.08
PICKETT 71	0.00	140.94	46.63	13.44	2.00
HAMPTON 266A	0.00	92.63	77.00	16.27	2.08
FORREST	0.00	112.56	40.88	12.22	2.08
ESSEX	0.00	133.94	37.25	14.21	2.00
WILLIAMS	0.00	154.69	39.13	14.46	2.00
CALLAND	0.00	143.69	42.25	15.88	2.42
CLARK 63	0.00	126.06	41.38	14.99	2.00
WOODWORTH	0.00	143.31	40.75	15.46	2.17
CUTLER 71	0.00	121.88	34.63	17.98	2.08
HILL	0.00	139.50	39.88	12.93	2.00
GRAND MEAN	0.00	136.21	46.37	14.82	2.07
NUMBER EXPERIMENTS CONTRIBUTING	0	4	2	4	3
STANDARD ERROR OF VARIETY MEAN	0.00	13.80	6.87	0.83	0.07
COEFFICIENT OF VARIATION	0.00%	40.52%	41.91%	22.28%	11.74%
5% LSD VARIETY MEANS (****=NS)	0.00	*****	20.99	2.36	0.20
CORRELATIONS AND NUMBER OF OBSERVATIONS					
(+ - PROB=.05, ++ - PROB=.01)					
YIELD KG/HA	0.00	0.22++	0.60++	-0.07	-0.15+
DAYS TO FLOWER	0.00	224	112	224	168
DAYS TO MATURITY	0.00	0.46++	-0.33++	0.05	-0.32+
NODULE NUMBER 1	0.00	112	112	112	56
NODULE NUMBER 2	0.00	-0.12	0.54++	0.00	-0.11
NODULE WEIGHT 1	0.00	224	112	224	168
NODULE WEIGHT 2	0.00	0.16	-0.10	-0.10	0.00
PLANT HEIGHT	0.00	0.23+	-0.39++	-0.03	0.12
LODGING	0.00	112	112	112	56
SHATTER	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	0	0	0	0
PODS PER PLANT	0.00	0.17	-0.34++	-0.06	0.26
100 SEED WEIGHT	0.00	0.35++	-0.23+	0.07	0.11
QUALITY OF SEED	0.00	224	112	224	168
	0.00	0	0	0	0
	1.00	0.00	0.00	0.00	0.00
	0.00	0	0	0	0
	0.00	1.00	-0.27++	-0.04	-0.09
	0.00	224	112	224	168
	0.00	-0.27++	1.00	0.07	-0.10
	0.00	112	112	112	56
	0.00	-0.04	0.07	1.00	0.13
	0.00	224	112	224	168
	0.00	-0.09	-0.10	0.13	1.00
	0	168	56	168	168

TABLE 52 COMBINED ANALYSIS OF ETHIOPIAN SITES IN ZONE III FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
HILL	2125.11	58.57	147.00	114.75	144.17	4.98	0.92	43.25	1.00
DAVIS	1932.99	78.00	152.58	102.67	121.83	5.80	1.00	44.75	1.00
ESSEX	1857.04	59.83	144.33	197.08	190.67	4.20	2.38	42.00	0.75
FORREST	1828.91	63.25	152.17	119.75	163.50	5.67	1.15	42.75	1.25
COLUMBUS	1740.56	45.17	145.67	228.58	212.17	4.65	1.73	46.13	1.13
BOSSIER	1728.47	50.50	143.33	174.92	162.42	5.93	1.68	36.69	1.00
COBB	1724.72	72.75	151.50	108.92	134.67	5.10	1.05	43.94	0.75
PICKETT 71	1657.83	51.58	140.33	96.00	110.00	3.90	0.97	33.25	1.38
IMPROVED PELICAN	1627.20	93.50	168.08	77.83	114.50	6.37	0.62	82.31	2.50
RANSOM	1507.59	55.42	143.33	208.08	180.25	5.80	1.35	34.69	0.75
WILLIAMS	1502.90	47.33	127.42	193.92	185.83	5.90	1.93	32.75	1.25
CALLAND	1216.28	46.58	142.83	113.50	126.83	4.15	1.35	33.75	0.88
WOODWORTH	1149.81	47.25	127.92	154.67	132.17	4.23	1.40	31.31	1.00
CLARK 63	1069.80	44.92	136.67	168.42	135.58	5.12	1.08	34.13	1.38
BRAGG	901.35	53.83	144.00	122.08	138.75	4.27	1.00	35.88	1.25
GRAND MEAN	1571.40	50.57	144.43	145.41	150.22	5.07	1.31	41.17	1.15
NUMBER EXPERIMENTS CONTRIBUTING	4	3	3	3	3	1	1	4	2
STANDARD ERROR OF VARIETY MEAN	175.39	3.27	4.21	17.54	17.51	0.93	0.29	4.33	0.40
COEFFICIENT OF VARIATION	44.65%	18.71%	10.03%	41.78%	40.38%	36.76%	43.96%	42.02%	97.77%
5% LSD VARIETY MEANS (****=NS)	500.58	9.48	12.13	50.81	50.72	*****	0.82	12.34	*****

CORRELATIONS AND NUMBER OF OBSERVATIONS

(* + - PROB=.05, ** - PROB=.01)

9	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
YIELD	1.00	0.36++	0.28++	-0.01	0.13	-0.02	0.02	0.34++	-0.33++
DAYS TO FLOWER	240	1.00	0.36++	180	180	0.07	0.00	240	120
DAYS TO MATURITY	180	180	1.00	120	120	0.00	0.00	180	0.01
NODULE NUMBER 1	0.28++	0.50++	1.00	0.03	0.48++	0.00	0.00	0.41++	-0.35++
NODULE NUMBER 2	130	180	180	120	120	0	0	180	120
NODULE WEIGHT 1	-0.01	-0.32++	0.03	1.00	0.65++	-0.09	0.54++	-0.19+	0.17
NODULE WEIGHT 2	0.13	0.07	0.48++	0.65++	1.00	-0.05	0.77++	-0.02	0.00
PLANT HEIGHT	130	120	120	180	180	1.00	0.00	180	0.00
LODGING	-0.02	0.00	0.00	-0.09	-0.05	1.00	-0.21	-0.02	0.00
SHATTER	50	0	0	60	60	0	0	60	0
PLANTS HARVEST	0.35++	0.11	-0.24++	-0.21+	-0.52++	0.00	0.00	0.14	-0.36++
PODS PER PLANT	180	180	180	120	120	0	0	180	120
100 SEED WEIGHT	0.52++	0.67++	0.49++	0.17+	0.33++	0.16	-0.04	0.67++	0.15
QUALITY OF SEED	240	180	180	180	180	60	60	240	120
	0.03	-0.16	-0.19+	0.23+	0.17	0.13	0.16	0.00	0.12
	180	120	120	120	120	60	60	180	120
	-0.12	0.15+	0.23++	-0.01	-0.09	0.00	0.00	0.12	-0.05
	130	130	180	120	120	0	0	180	120

TABLE 52 COMBINED ANALYSIS OF ETHIOPIAN SITES IN ZONE III FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
HILL	1.25	194.83	24.83	17.32	1.25
DAVIS	1.36	159.57	23.10	29.00	1.33
ESSEX	1.50	186.67	19.53	18.10	1.17
FORREST	1.13	158.75	19.75	16.36	1.42
COLUMBUS	1.50	160.75	23.49	32.51	1.17
BOSSIER	1.00	154.75	20.03	19.36	1.42
COBB	1.50	167.33	27.62	27.78	1.50
PICKETT 71	1.50	159.33	17.89	17.00	1.42
IMPROVED PELICAN	1.75	156.17	42.41	24.64	1.75
RANSOM	1.63	175.58	19.15	35.46	1.58
WILLIAMS	2.13	154.33	16.62	19.20	1.33
CALLAND	2.25	178.25	14.71	18.44	2.25
WOODWORTH	1.50	139.75	13.73	31.38	1.17
CLARK 63	1.50	167.42	15.21	29.56	1.58
BRAGG	1.53	170.42	12.23	19.98	2.08
GRAND MEAN	1.54	172.27	20.69	23.74	1.49
NUMBER EXPERIMENTS CONTRIBUTING	2	3	4	3	3
STANDARD ERROR OF VARIETY MEAN	0.18	8.22	3.31	6.66	0.18
COEFFICIENT OF VARIATION	32.97%	16.53%	63.89%	97.15%	41.28%
5% LSD VARIETY MEANS (****=NS)	0.55	*****	9.43	*****	0.52
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD KG/HA	-0.00	0.35++	0.52++	0.03	-0.12
DAYS TO FLOWER	120	130	240	180	180
DAYS TO MATURITY	0.07	0.11	0.67++	-0.16	0.16+
	120	130	180	120	180
NODULE NUMBER 1	0.27++	-0.24++	0.49++	-0.19+	0.23++
	120	180	180	120	180
NODULE NUMBER 2	0.00	-0.21+	0.17+	0.23+	-0.01
	50	120	180	120	120
NODULE WEIGHT 1	-0.13	-0.52++	0.33++	0.17	-0.09
	60	120	180	120	120
NODULE WEIGHT 2	0.00	0.00	0.15	0.13	0.00
	0	0	60	60	0
PLANT HEIGHT	0.00	0.00	-0.04	0.16	0.00
	0	0	60	60	0
LODGING	0.06	0.14	0.67++	0.00	0.12
	120	130	240	180	180
SHATTER	-0.29++	-0.36++	0.15	0.12	-0.05
	120	120	120	120	120
PLANTS HARVEST	1.00	0.17	0.07	-0.25++	0.26++
	120	120	120	120	120
PODS PER PLANT	0.17	1.00	-0.05	-0.18	0.15+
	120	180	180	120	180
100 SEED WEIGHT	0.07	-0.05	1.00	-0.03	0.01
	120	180	240	180	180
QUALITY OF SEED	-0.25++	-0.13	-0.03	1.00	-0.18+
	120	120	180	180	120
	0.26++	0.15+	0.01	-0.18+	1.00
	120	180	180	120	180

(+ - PROB=.05, ++ - PROB=.01)

TABLE 53 COMBINED ANALYSIS OF MESOAMERICAN SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
COLUMBUS	2226.60	25.92	83.33	98.75	162.60	0.94	2.80	52.79	1.08
DAVIS	2213.93	30.33	87.54	88.04	152.40	1.11	2.89	40.63	1.04
CALLAND	2204.55	24.88	84.04	84.67	164.75	0.94	3.22	54.63	1.25
FORREST	2048.14	27.75	86.17	74.42	184.45	0.91	2.47	37.25	1.04
WILLIAMS	1951.95	24.96	82.17	101.50	158.15	1.21	2.97	50.29	1.21
CLARK 63	1913.54	25.38	82.25	70.75	125.70	0.76	2.51	49.13	1.42
RANSOM	1896.46	28.58	89.63	100.21	213.35	0.95	2.79	31.83	1.00
CUTLER 71	1879.53	25.08	82.75	90.00	155.75	1.08	2.89	48.92	1.21
COBB	1875.98	29.63	92.21	73.42	147.50	0.89	2.58	39.29	1.04
HILL	1838.08	29.96	85.88	72.54	121.55	0.90	1.99	36.42	1.17
PICKETT 71	1827.06	28.63	90.38	75.75	146.40	0.98	2.26	26.25	1.00
BROGG	1813.24	28.54	90.63	72.79	201.30	0.91	3.25	38.67	1.04
BOSSIER	1781.39	27.83	93.71	102.08	185.75	1.08	2.74	32.67	1.00
IMPROVED PELICAN	1701.71	39.08	98.29	75.29	162.85	1.14	2.05	86.75	2.17
WOODWORTH	1550.95	24.42	82.83	58.04	97.60	0.77	2.43	43.96	1.21
GRAND MEAN	1914.91	28.07	87.45	82.55	158.67	0.95	2.66	44.63	1.19
NUMBER EXPERIMENTS CONTRIBUTING	6	6	5	6	5	5	4	6	6
STANDARD ERROR OF VARIETY MEAN	112.68	0.76	2.74	10.34	14.90	0.10	0.29	2.17	0.13
COEFFICIENT OF VARIATION	28.83%	13.31%	15.35%	61.34%	42.00%	47.93%	43.36%	23.84%	54.35%
5% LSD VARIETY MEANS (****=NS)	317.81	2.15	7.73	*****	42.22	*****	*****	6.13	0.37
CORRELATIONS AND NUMBER OF OBSERVATIONS									
(+ - PROB=.05, ++ - PROB=.01)									
YIELD	1.00	0.01	-0.02	0.01	0.45++	0.05	0.27++	0.01	-0.09
DAYS TO FLOWER	360	360	360	360	300	300	240	360	360
DAYS TO MATURITY	0.01	1.00	0.42++	0.21++	0.10	0.37++	-0.04	0.30++	0.42++
NODULE NUMBER 1	-0.02	0.42++	1.00	0.21++	0.27++	0.28++	-0.09	0.25++	0.17++
NODULE NUMBER 2	0.01	0.21++	0.21++	1.00	0.55++	0.91++	0.44++	0.27++	0.03
NODULE WEIGHT 1	0.45++	0.10	0.27++	0.55++	1.00	0.51++	0.45++	0.17++	-0.08
NODULE WEIGHT 2	0.05	0.37++	0.28++	0.91++	0.51++	1.00	0.45++	0.28++	0.16++
PLANT HEIGHT	0.01	0.30++	0.25++	0.27++	0.17++	0.28++	0.00	1.00	0.40++
LODGING	-0.09	0.42++	0.17++	0.03	-0.08	0.16++	-0.02	0.40++	1.00
SHATTER	-0.30++	-0.43++	-0.38++	-0.04	-0.22+	-0.19+	-0.24	-0.04	-0.12
PLANTS HARVEST	-0.14++	-0.05	0.24++	0.16++	0.02	0.00	-0.38++	0.24++	-0.00
PODS PER PLANT	-0.22++	0.38++	0.05	0.24++	-0.08	0.41++	0.22++	0.32++	0.31++
100 SEED WEIGHT	-0.05	-0.07	-0.03	0.17++	-0.14+	0.23++	0.23++	-0.19++	0.18++
QUALITY OF SEED	-0.17++	0.01	0.15+	0.14+	0.16+	0.21++	0.17+	0.01	0.15+
	240	240	240	240	240	180	180	240	240

TABLE 53 COMBINED ANALYSIS OF MESOAMERICAN SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
COLUMBUS	1.25	197.08	26.62	16.70	2.00
DAVIS	1.42	236.13	26.49	15.94	1.75
CALLAND	2.25	224.83	24.54	19.06	2.81
FORREST	1.33	201.21	27.56	14.43	2.94
WILLIAMS	1.42	212.67	20.70	13.62	2.38
CLARK 63	1.25	215.92	20.13	17.72	2.75
RANSOM	1.08	212.63	22.23	16.51	2.38
CUTLER 71	2.08	199.33	21.51	18.96	2.63
COBB	1.00	199.42	28.82	15.94	2.63
HILL	2.00	236.29	22.35	15.58	2.25
PICKETT 71	2.08	189.79	21.65	16.63	2.31
BRAGG	1.00	211.67	24.80	15.10	3.69
BOSSIER	1.00	166.46	24.21	15.98	2.88
IMPROVED PELICAN	1.25	170.33	42.49	11.17	2.63
WOODWORTH	2.58	206.79	17.69	17.03	3.25
GRAND MEAN	1.53	205.37	24.73	16.36	2.62
NUMBER EXPERIMENTS CONTRIBUTING	3	6	5	6	4
STANDARD ERROR OF VARIETY MEAN	0.43	7.00	3.01	0.98	0.42
COEFFICIENT OF VARIATION	97.64%	16.70%	54.32%	29.23%	64.56%
5% LSD VARIETY MEANS (****=NS)	*****	19.75	8.53	2.75	*****

CORRELATIONS AND NUMBER OF OBSERVATIONS					(+ - PROB=.05, ** - PROB=.01)	
YIELD	KG/HA					
DAYS TO FLOWER	-0.30++	-0.14++	-0.22++	-0.05	-0.17++	
	180	360	300	360	240	
DAYS TO MATURITY	-0.43++	-0.05	0.33++	-0.07	0.01	
	180	360	300	360	240	
NODULE NUMBER 1	-0.38++	0.24++	0.05	-0.03	0.16+	
	180	360	300	360	240	
NODULE NUMBER 2	-0.04	0.16++	0.24++	0.17++	0.14+	
	130	360	300	360	240	
NODULE WEIGHT 1	-0.22+	0.02	-0.03	-0.14+	0.16+	
	120	300	240	300	240	
NODULE WEIGHT 2	-0.19+	0.00	0.41++	0.23++	0.21++	
	120	300	240	300	180	
PLANT HEIGHT	-0.04	0.24++	0.32++	0.22++	0.17+	
	180	240	180	240	180	
LODGING	-0.12	-0.00	0.31++	-0.19++	0.01	
	180	360	300	360	240	
SHATTER	1.00	-0.11	0.01	0.18++	0.15+	
	180	180	180	360	240	
PLANTS HARVEST	-0.11	1.00	0.14+	0.15++	-0.22++	
	130	360	300	360	240	
PODS PER PLANT	0.01	0.14+	1.00	0.14+	-0.16+	
	180	300	300	300	180	
100 SEED WEIGHT	-0.10	0.15++	0.14+	1.00	-0.03	
	180	360	300	360	240	
QUALITY OF SEED	0.16	-0.22++	-0.16+	-0.03	1.00	
	120	240	180	240	240	

TABLE 54 EXPERIMENT 90 - YEAR 1976

REGION - AFRICA COUNTRY - ALGERIA
 SITE - KHEMIS-MILIANA ELEVATION - 289 M
 LATITUDE - 36 DEG. 15 MIN. N LONGITUDE - 2 DEG. 14 MIN. E
 COOPERATOR - I.D.C.I. DATE HARVESTED - AUGUST, 1976
 DATE PLANTED - APRIL 19, 1976
 SOIL TYPE - SAND 13%, SILT 21%, CLAY 30%, PH 8.2
 FERTILIZER USED (KG/HA) - P 100.0, K 120.0
 AMOUNT OF MOISTURE - 1060 MM
 NUMBER OF IRRIGATIONS - 48
 LOCAL VARIETIES - TIE FENG 17, KAI YU 3

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	HODGSON	2983.90	41.50	103.00	99.00	163.75	0.54	2.21	47.00	1.00
12	CORSOY	2541.26	41.00	115.00	71.25	129.00	0.35	1.80	49.50	1.00
2	WOODWORTH	2369.41	52.75	115.00	69.25	179.25	0.79	1.43	68.50	1.00
16	STEELE	2327.75	42.75	103.00	108.25	128.00	0.94	1.54	49.75	1.00
9	BEESON	2218.39	41.00	115.00	46.00	101.75	0.23	1.27	62.00	1.00
13	AMSOY 71	2176.73	42.00	115.00	53.00	120.00	0.25	1.10	59.00	1.25
5	WILLIAMS	2152.26	46.75	122.00	102.00	244.75	1.05	1.98	67.00	1.25
8	WELLS	2098.62	41.50	115.00	43.50	70.25	0.35	1.11	47.75	1.00
4	CUTLER 71	2020.51	55.25	129.00	116.50	250.25	2.33	2.37	73.75	1.00
11	KAI YU 3	1859.08	41.50	115.00	38.25	62.50	0.10	0.64	54.00	1.50
15	CALLAND	1791.38	41.00	122.00	61.50	160.00	0.56	2.25	69.00	1.50
15	HARK	1655.98	42.25	105.00	71.00	61.00	0.40	1.51	47.75	1.00
6	CLARK 63	1520.59	45.50	129.00	84.50	157.00	0.62	1.38	56.25	1.00
10	TIE FENG 17	1447.68	47.25	115.00	38.75	119.00	0.42	1.47	56.75	1.50
3	HILL	921.73	59.00	186.00	196.00	105.75	2.45	1.43	70.00	3.00
7	FORREST	510.33	59.00	201.00	202.50	93.75	2.15	1.38	90.75	2.75
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1912.23	46.25	125.31	87.58	134.13	0.85	1.55	60.55	1.36
COEFFICIENT OF VARIATION		169.92	1.80	0.00	19.55	32.57	0.43	0.38	4.45	0.26
5% LSD VARIETY MEANS (*****=NS)		17.77%	7.79%	0.00%	44.65%	48.57%	102.16%	48.68%	14.71%	37.91%
		484.02	5.13	0.00	55.70	92.77	1.23	*****	12.69	0.73
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	-0.48++	-0.69++	-0.26+	0.30+	-0.20	0.30+	-0.22	-0.48++
DAYS TO FLOWER		-0.48++	1.00	0.73++	0.57++	0.02	0.54++	-0.08	0.59++	0.52++
DAYS TO MATURITY		-0.69++	0.73++	1.00	0.67++	-0.06	0.54++	-0.04	0.63++	0.73++
NODULE NUMBER 1		-0.26+	0.57++	0.67++	1.00	0.23	0.68++	0.28+	0.41++	0.48++
NODULE NUMBER 2		0.30+	0.02	-0.06	0.23	1.00	0.30+	0.79++	0.12	-0.01
NODULE WEIGHT 1		-0.20	0.54++	0.54++	0.68++	0.30+	1.00	0.28+	0.47++	0.45++
NODULE WEIGHT 2		0.30+	-0.08	-0.04	0.28+	0.79++	0.28+	1.00	0.10	0.12
PLANT HEIGHT		-0.22	0.59++	0.63++	0.41++	0.12	0.47++	0.10	1.00	0.54++
LODGING		-0.48++	0.52++	0.73++	0.48++	-0.01	0.45++	0.12	0.54++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.12	-0.07	-0.13	-0.04	0.14	-0.08	0.15	-0.32++	-0.20
PODS PER PLANT		0.26+	-0.20	-0.19	-0.14	-0.02	0.01	0.00	0.02	0.02
100 SEED WEIGHT		-0.05	0.28+	0.48++	0.41++	-0.05	0.26+	0.03	0.39++	0.47++
QUALITY OF SEED		-0.11	-0.39++	-0.43++	-0.55++	-0.17	-0.46++	-0.14	-0.37++	-0.32+

TABLE 54 EXPERIMENT 90 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	HODGSON	1.00	85.75	51.90	14.32	1.50	41.2	22.2
12	CORSOY	1.00	79.00	52.32	12.57	3.00	39.2	24.0
2	WOODWORTH	1.00	72.25	47.75	12.28	2.25	41.0	23.6
16	STEELE	1.00	74.75	40.95	14.58	1.50	42.4	23.5
9	BERSON	1.00	77.25	45.15	13.18	3.00	40.7	21.7
13	AMSOY 71	1.00	71.75	47.05	13.66	3.00	38.8	21.5
5	WILLIAMS	1.00	73.75	64.32	13.47	1.75	40.2	23.6
8	WELLS	1.00	84.00	51.05	12.26	2.25	40.0	23.5
4	CUTLER 71	1.00	75.25	42.00	12.03	2.25	43.0	20.4
11	KAI YU 3	1.00	39.25	63.75	14.24	3.25	39.9	21.6
1	CALLAND	1.00	70.00	48.55	11.79	3.50	43.0	19.6
15	HARK	1.00	69.00	45.95	12.21	3.75	40.4	22.3
6	CLARK 63	1.00	79.25	33.47	11.01	3.00	--	--
10	TIE FENG 17	1.00	72.75	50.42	10.89	4.25	42.3	19.3
3	HILL	1.00	76.00	53.27	15.48	1.25	--	--
7	FORREST	1.00	61.75	32.35	17.81	1.00	43.9	20.1
	GRAND MEAN	1.00	72.61	48.14	13.24	2.53		
	STANDARD ERROR OF A VARIETY MEAN	0.00	4.47	6.01	0.86	0.33		
	COEFFICIENT OF VARIATION	0.00%	12.30%	24.98%	12.99%	26.30%		
	5% LSD VARIETY MEANS (*****=NS)	0.00	12.72	17.13	2.45	0.95		
C O R R E L A T I O N S								
	YIELD	0.00	0.12	0.26+	-0.05	-0.11		
	KG/HA	0.00	0.07	-0.20	0.28+	-0.39++		
	DAYS TO FLOWER	0.00	-0.13	-0.19	0.48++	-0.43++		
	DAYS TO MATURITY	0.00	-0.04	-0.14	0.41++	-0.55++		
	NODULE NUMBER 1	0.00	0.14	0.02	-0.05	-0.17		
	NODULE NUMBER 2	0.00	-0.08	0.01	0.26+	-0.46++		
	NODULE WEIGHT 1	0.00	0.15	0.00	0.03	-0.14		
	NODULE WEIGHT 2	0.00	-0.32++	0.02	0.39++	-0.37++		
	PLANT	0.00	-0.20	0.02	0.47++	-0.32+		
	LODGING	0.00	0.00	0.00	0.00	0.00		
	SHATTER	1.00	0.00	0.00	0.00	0.00		
	PLANTS	0.00	1.00	-0.25+	-0.14	-0.10		
	HARVEST	0.00	-0.25+	1.00	0.03	0.06		
	PODS PER	0.00	-0.10	0.03	1.00	-0.63++		
	100 SEED	0.00	-0.10	0.06	-0.63++	1.00		
	WEIGHT	0.00						
	QUALITY	0.00						
	OF SEED	0.00						

(* - PROB=.05 ** - PROB=.01)

TABLE 55 EXPERIMENT 239 YEAR 1976

REGION - AFRICA COUNTRY - BENIN
 SITE - PARAKOU ELEVATION - 358 M
 LATITUDE - 9 DEG. 58 MIN. N LONGITUDE - 2 DEG. 44 MIN. E
 COOPERATOR - I.R.A.T.-BENIN DATE HARVESTED - OCTOBER, 1976
 DATE PLANTED - JULY 22, 1976
 SOIL TYPE - SAND, PH 5.7
 FERTILIZER USED (KG/HA) - P 40.0, K 60.0
 AMOUNT OF MOISTURE - 689 MM
 LOCAL VARIETY - 72-20-57-2

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	JUPITER	3467.36	50.75	115.00	291.50	407.25	3.28	4.25	74.00	1.75
7	TGX 13-3-2644	3242.31	43.75	107.75	335.75	577.50	5.20	6.30	71.50	1.00
16	72-20-57-2	3217.31	52.00	117.00	368.25	449.50	4.12	4.98	86.50	1.00
2	TGM 210-1-2363	3175.63	44.50	101.00	209.00	317.00	3.30	3.80	67.00	1.00
5	TGM 294-4-2371	3058.94	51.00	100.75	234.50	434.75	3.23	4.32	69.25	1.00
1	TGM 220-1-2205	3025.60	49.75	101.50	247.50	319.00	3.45	5.18	48.75	1.00
14	DAVIS	3000.60	39.75	98.25	244.00	336.50	4.20	4.98	34.50	1.00
8	TGM 256-1-B	2717.21	45.50	101.00	304.25	477.50	4.23	6.82	62.75	1.00
4	TGM 249-4-B	2650.53	38.50	98.00	334.50	751.25	4.20	6.75	71.25	1.00
6	TGX 66-5100	2375.47	43.00	98.00	217.75	433.25	3.80	5.90	66.50	1.00
3	TGM 255-2-4341	2325.46	41.00	101.00	292.00	485.00	3.05	5.33	53.50	1.00
13	COBB	2267.12	38.75	98.75	259.50	546.00	5.30	7.30	36.25	1.00
11	WILLIAMS	2175.43	35.00	92.00	323.50	350.25	3.60	4.55	45.75	1.00
15	IMPROVED PELICAN	2158.76	41.75	98.00	207.00	325.75	2.80	3.43	83.25	1.00
12	CLARK 63	2108.75	35.00	95.75	296.00	324.50	3.45	4.43	49.00	1.00
10	BOSSIER	1533.64	35.00	99.50	274.00	450.25	4.20	5.18	27.50	1.00
GRAND MEAN										
2656.26										
STANDARD ERROR OF A VARIETY MEAN										
197.73										
COEFFICIENT OF VARIATION										
14.89%										
5% 1st VARIETY MEANS (*****=NS)										
563.21										
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.62++	0.53++	0.11	0.03	0.09	0.05	0.51++	0.24
DAYS TO FLOWER	1.00	0.67++	0.67++	-0.01	-0.03	-0.11	-0.08	-0.28+	0.55++	0.45++
DAYS TO MATURITY	0.53++	0.67++	1.00	0.25+	0.09	0.07	-0.05	0.47++	0.05	0.02
NODULE NUMBER 1	0.11	-0.01	0.25+	1.00	0.42++	0.57++	0.77++	0.14	-0.00	-0.19
NODULE NUMBER 2	0.03	-0.03	0.09	0.42++	1.00	0.53++	1.00	0.71++	-0.12	-0.13
NODULE WEIGHT 1	0.09	-0.11	0.07	0.57++	0.53++	0.77++	1.00	1.00	1.00	0.18
NODULE WEIGHT 2	0.05	-0.08	-0.05	0.40++	0.14	-0.19	-0.12	-0.13	0.00	0.00
PLANT	HEIGHT	0.51++	0.55++	0.47++	0.05	0.16	-0.13	0.00	0.00	0.00
LODGING	0.24	0.28+	0.45++	0.02	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.18	0.16	-0.05	-0.18	-0.37++	-0.12	-0.33++	0.02	-0.13	-0.13
PODS PER	PLANT	0.21	0.31+	0.40++	0.17	-0.07	0.51++	0.12	0.51++	0.12
100 SEED	WEIGHT	0.02	-0.34++	-0.18	0.00	0.25+	-0.03	-0.54++	0.18	0.18
QUALITY	OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 56

EXPERIMENT 271

YEAR 1976

REGION - AFRICA

COUNTRY - BENIN

SITE - SAVE

ELEVATION - 200 M

LATITUDE - 8 DEG. N

LONGITUDE - 2 DEG. 40 MIN. E

COOPERATOR - E. LIMBURG

DATE HARVESTED - NOVEMBER, 1976

DATE PLANTED - AUGUST 24, 1976

SOIL TYPE - SAND, PH 6.5

FERTILIZER USED (KG/HA) - N 15.0, P 25.0, K 15.0

AMOUNT OF MOISTURE - 267 MM

LOCAL VARIETY - PORREST (BENIN)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	DAVIS	3297.14	52.00	81.00	0.00	0.00	0.00	0.00	68.00	0.00
13	COBB	2566.18	50.50	77.00	0.00	0.00	0.00	0.00	66.25	0.00
15	IMPROVED PELICAN	2483.18	52.00	81.00	0.00	0.00	0.00	0.00	66.25	0.00
5	TGM 294-4-2371	1497.69	52.00	72.25	0.00	0.00	0.00	0.00	70.25	0.00
11	WILLIAMS	1494.91	51.00	75.75	0.00	0.00	0.00	0.00	68.25	0.00
16	PORREST (BENIN)	1118.14	50.00	77.00	0.00	0.00	0.00	0.00	70.75	0.00
4	TGM 249-4-B	904.93	49.25	72.25	0.00	0.00	0.00	0.00	72.25	0.00
2	TGM 210-1-2363	856.67	49.50	72.00	0.00	0.00	0.00	0.00	70.75	0.00
7	TGX 13-3-2644	796.24	49.25	72.00	0.00	0.00	0.00	0.00	69.25	0.00
10	BOSSIER	694.15	51.00	73.00	0.00	0.00	0.00	0.00	65.00	0.00
6	TGX 66-5100	632.34	50.00	71.00	0.00	0.00	0.00	0.00	66.25	0.00
12	CLARK 63	588.24	49.00	73.25	0.00	0.00	0.00	0.00	72.00	0.00
1	TGM 220-1-2205	511.15	49.00	72.00	0.00	0.00	0.00	0.00	70.50	0.00
8	TGM 256-1-B	432.67	49.50	74.00	0.00	0.00	0.00	0.00	67.75	0.00
3	TGM 255-2-4341	247.24	49.25	72.75	0.00	0.00	0.00	0.00	69.25	0.00
9	JUPIER	10.76	50.75	74.25	0.00	0.00	0.00	0.00	70.25	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1133.23	50.25	74.41	0.00	0.00	0.00	0.00	68.94	0.00
COEFFICIENT OF VARIATION		285.92	0.36	0.48	0.00	0.00	0.00	0.00	1.76	0.00
5% LST VARIETY MEANS (*****=NS)		50.46%	1.45%	1.28%	0.00%	0.00%	0.00%	0.00%	5.11%	0.00%
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.52++	0.67++	0.00	0.00	0.00	0.00	-0.24	0.00
DAYS TO FLOWER	0.52++	1.00	0.55++	0.55++	0.00	0.00	0.00	0.00	-0.14	0.00
DAYS TO MATURITY	0.67++	0.67++	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	-0.24	-0.28+	-0.14	0.00	0.00	0.00	0.00	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
HARVEST	0.54++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	0.00
PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 56 EXPERIMENT 271 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	DAVIS	0.00	76.00	0.00	0.00	0.00
13	COBB	0.00	77.00	0.00	0.00	0.00
15	IMPROVED PELICAN	0.00	56.75	0.00	0.00	0.00
5	TGM 294-4-2371	0.00	133.25	0.00	0.00	0.00
11	WILLIAMS	0.00	37.00	0.00	0.00	0.00
16	PORREST (BENIN)	0.00	38.75	0.00	0.00	0.00
4	TGM 249-4-B	0.00	40.50	0.00	0.00	0.00
2	TGM 210-1-2363	0.00	75.25	0.00	0.00	0.00
7	TGX 13-3-2644	0.00	72.75	0.00	0.00	0.00
10	BOSSIER	0.00	27.50	0.00	0.00	0.00
6	TGX 66-5100	0.00	62.00	0.00	0.00	0.00
12	CLARK 63	0.00	27.75	0.00	0.00	0.00
1	TGM 220-1-2205	0.00	9.50	0.00	0.00	0.00
8	TGM 256-1-B	0.00	58.00	0.00	0.00	0.00
3	TGM 255-2-4341	0.00	7.00	0.00	0.00	0.00
9	JUPITER	0.00	1.75	0.00	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	50.05	0.00	0.00	0.00
COEFFICIENT OF VARIATION		0.00	12.44	0.00	0.00	0.00
5% ISL VARIETY MEANS (*****=NS)		0.00%	49.73%	0.00%	0.00%	0.00%
		0.00	35.45	0.00	0.00	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD	KG/HA	0.00	0.54++	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.30+	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.08	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	-0.03	0.00	0.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	0.00	0.00	0.00
PODS PER	PLANT	0.00	0.00	1.00	0.00	0.00
100 SEED	WEIGHT	0.00	0.00	0.00	1.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 57 EXPERIMENT 150 YEAR 1976

REGION - AFRICA
 SITE - GABORONE
 LATITUDE - 24 DEG. 34 MIN. S
 COOPERATOR - P.G. LEE
 DATE PLANTED - NOVEMBER 25, 1976
 SOIL TYPE - PH 5.7
 FERTILIZER USED (KG/HA) - N 25.0, P 37.0, K 25.0
 AMOUNT OF MOISTURE - 439 MM

COUNTRY - BOTSWANA
 ELEVATION - 994 M
 LONGITUDE - 25 DEG. 57 MIN. E
 DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	DAVIS	1668.33	60.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	BOSSIER	1568.77	62.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	RANSOM	1549.43	55.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	BAGG	1495.55	62.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	FORREST	1492.42	56.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	PICKETT 71	1407.95	58.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	CUTLER 71	1404.45	43.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	CALLAND	1403.24	37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	CLARK 63	1389.74	42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	HILL	1322.85	58.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	ESSEX	1309.76	51.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	WILLIAMS	1289.42	46.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	COLUMBUS	934.10	46.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	WOODWORTH	923.56	42.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	WELLS	770.82	40.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	BEESON	655.17	42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRAND MEAN		1286.60	50.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN		266.07	3.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COEFFICIENT OF VARIATION		41.36%	14.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5% LSD VARIETY MEANS (*****=NS)		*****	10.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C O R R E L A T I O N S										
YIELD		KG/HA								
DAYS TO FLOWER		0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT		HEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING		HEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
PLANTS HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(+ - PROB=.05 ++ - PROB=.01)

TABLE 57 EXPERIMENT 150 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	DAVIS	0.00	0.00	0.00	17.81	0.00
8	BOSSIER	0.00	0.00	0.00	16.31	0.00
4	RANSOM	0.00	0.00	0.00	18.82	0.00
3	BRIAG	0.00	0.00	0.00	18.91	0.00
12	FORREST	0.00	0.00	0.00	15.58	0.00
6	PICKETT 71	0.00	0.00	0.00	16.97	0.00
7	CUTLER 71	0.00	0.00	0.00	18.37	0.00
1	CALLAND	0.00	0.00	0.00	19.15	0.00
10	CLARK 63	0.00	0.00	0.00	18.53	0.00
5	HILL	0.00	0.00	0.00	15.82	0.00
16	ESSEX	0.00	0.00	0.00	17.18	0.00
9	WILLIAMS	0.00	0.00	0.00	19.06	0.00
15	COLUMBUS	0.00	0.00	0.00	16.05	0.00
2	WOODWORTH	0.00	0.00	0.00	19.00	0.00
13	WELLS	0.00	0.00	0.00	17.13	0.00
14	BEESON	0.00	0.00	0.00	18.60	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	0.00	0.00	17.71	0.00
COEFFICIENT OF VARIATION		0.00%	0.00%	0.00%	0.95	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	0.00	0.00	10.68%	0.00%
C O R R E L A T I O N S (+ - PROB=.05 + + - PROB=.01)						
YIELD	KG/HA	0.00	0.00	0.00	0.10	0.00
DAYS TO FLOWER		0.00	0.00	0.00	-0.37++	0.00
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	0.00	0.00	0.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	0.00	0.00	0.00
PODS PER	PLANT	0.00	0.00	1.00	0.00	0.00
100 SEED	WEIGHT	0.00	0.00	0.00	1.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 58 EXPERIMENT 149

YEAR 1976

REGION - AFRICA
 SITE - MAHALAPYE
 LATITUDE - 23 DEG. 7 MIN. S
 COOPERATOR - LYNN A. MILLER
 DATE PLANTED - NOVEMBER 3, 1976
 SOIL TYPE - SAND 78%, SILT 14%, CLAY 8%, PH 5.3
 LOCAL VARIETIES - GEDULD, MASTERPIECE

COUNTRY - BOTSWANA
 ELEVATION - 1000 M
 LONGITUDE - 26 DEG. 50 MIN. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
3	RANSOM	3244.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	BOSSIER	3160.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	PICKETT 71	3054.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	DAVIS	2891.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	BRAGG	2724.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	FORREST	2532.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	MASTERPIECE	2430.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	GEDULD	2157.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	CALLAND	1764.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	HILL	1555.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	WELLS	1044.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	CUTLER 71	837.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRAND MEAN		2283.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN		375.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COEFFICIENT OF VARIATION		32.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5% LSD VARIETY MEANS (*****=NS)		1080.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C O R R E L A T I O N S										
YIELD		KG/HA	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER 100 SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(+ - PROB=-.05 +- - PROB=-.01)

TABLE 58 EXPERIMENT 149 YEAR 1976 (CONTINUED)

ENTRY NUMEEE	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	RANSOM	0.00	0.00	0.00	0.00	0.00
7	BOSSIER	0.00	0.00	0.00	0.00	0.00
5	PICKETT 71	0.00	0.00	0.00	0.00	0.00
8	DAVIS	0.00	0.00	0.00	0.00	0.00
2	BRAGG	0.00	0.00	0.00	0.00	0.00
9	PORREST	0.00	0.00	0.00	0.00	0.00
12	MASTERPIECE	0.00	0.00	0.00	0.00	0.00
11	GEDULD	0.00	0.00	0.00	0.00	0.00
1	CALLAND	0.00	0.00	0.00	0.00	0.00
4	HILL	0.00	0.00	0.00	0.00	0.00
10	WELLS	0.00	0.00	0.00	0.00	0.00
6	CUTLER 71	0.00	0.00	0.00	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	0.00	0.00	0.00	0.00
COEFFICIENT OF VARIATION		0.00%	0.00%	0.00%	0.00%	0.00%
5% LSD VARIETY MEANS (*****=NS)		0.00	0.00	0.00	0.00	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD		0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT		0.00	0.00	0.00	0.00	0.00
HEIGHT		0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	0.00	0.00	0.00
PLANTS		0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 59 EXPERIMENT 171

YEAR 1976

REGION - AFRICA
 SITE - BUHORO
 LATITUDE - 3 DEG. S
 COOPERATOR - J. DE BRABANDERE
 DATE PLANTED - MARCH 4, 1977
 AMOUNT OF MOISTURE - 550 MM
 LOCAL VARIETIES - PALMETTO, OGDEN
 COUNTRY - BURUNDI
 ELEVATION - 1450 M
 DATE HARVESTED - MAY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
18	OGDEN	1546.14	0.00	115.00	0.00	0.00	0.00	0.00	0.00	0.00
7	CUTLER 71	1487.80	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
12	COBB	1316.93	0.00	115.00	0.00	0.00	0.00	0.00	0.00	0.00
16	COLUMBUS	981.45	0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00
15	FORREST	981.45	0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00
14	IMPROVED PELICAN	939.77	0.00	110.00	0.00	0.00	0.00	0.00	0.00	0.00
13	DAVIS	827.25	0.00	110.00	0.00	0.00	0.00	0.00	0.00	0.00
5	HILL	798.08	0.00	110.00	0.00	0.00	0.00	0.00	0.00	0.00
10	WILLIAMS	702.22	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
17	PALMETTO	685.55	0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00
1	CALLAND	627.21	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
11	CLARK 63	614.71	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
9	BOSSIER	602.20	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00
3	BRAGG	564.70	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00
4	RANSOM	525.10	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00
6	PICKETT 71	516.77	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
8	JUPITER	464.68	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00
2	WOODWORTH	460.51	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00
GRAND MEAN		813.47	0.00	105.56	0.00	0.00	0.00	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN		122.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COEFFICIENT OF VARIATION		30.13%	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5% LSD VARIETY MEANS (*****=NS)		347.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C O R R E L A T I O N S										
YIELD		1.00	0.00	0.63++	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.63++	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(+ - PROB=.05 ++ - PROB=.01)

TABLE 59 EXPERIMENT 171 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
18	OGDEN	0.00	0.00	0.00	0.00	0.00
7	CUTLER 71	0.00	0.00	0.00	0.00	0.00
12	COBB	0.00	0.00	0.00	0.00	0.00
16	COLUMBUS	0.00	0.00	0.00	0.00	0.00
15	FORREST	0.00	0.00	0.00	0.00	0.00
14	IMPROVED PELICAN	0.00	0.00	0.00	0.00	0.00
13	DAVIS	0.00	0.00	0.00	0.00	0.00
5	HILL	0.00	0.00	0.00	0.00	0.00
10	WILLIAMS	0.00	0.00	0.00	0.00	0.00
17	PALMETTO	0.00	0.00	0.00	0.00	0.00
1	CALLAND	0.00	0.00	0.00	0.00	0.00
11	CLARK 63	0.00	0.00	0.00	0.00	0.00
9	BOSSIER	0.00	0.00	0.00	0.00	0.00
3	BRAGG	0.00	0.00	0.00	0.00	0.00
4	RANSOM	0.00	0.00	0.00	0.00	0.00
6	PICKETT 71	0.00	0.00	0.00	0.00	0.00
8	JUPITER	0.00	0.00	0.00	0.00	0.00
2	WOODWORTH	0.00	0.00	0.00	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	0.00	0.00	0.00	0.00
COEFFICIENT OF VARIATION		0.00%	0.00%	0.00%	0.00%	0.00%
5% ISL VARIETY MEANS (*****=NS)		0.00	0.00	0.00	0.00	0.00
C O R R E L A T I O N S						
YIELD KG/HA		0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00
				(+ - PROB=.05		
				++ - PROB=.01)		

TABLE 60 EXPERIMENT 171A YEAR 1976

REGION - AFRICA COUNTRY - BURUNDI
 SITE - SEMS-IMBO ELEVATION - 780 M
 LATITUDE - 3 DEG. 20 MIN. S LONGITUDE - 29 DEG. E
 COOPERATOR - DE MARCHI
 DATE PLANTED - MARCH 14, 1977 DATE HARVESTED - JULY, 1977
 SOIL PH - 7
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 304 MM
 LOCAL VARIETY - PALMETTO

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	CALLAND	398.41	37.25	103.75	14.50	0.00	0.30	0.00	28.80	1.25
10	CLARK 63	317.56	36.00	94.50	37.75	0.00	0.64	0.00	24.60	1.25
2	WOODWORTH	285.06	32.75	92.25	38.75	0.00	0.58	0.00	26.65	1.50
13	IMPROVED PELICAN	270.89	44.00	114.00	14.00	0.00	0.26	0.00	34.55	1.25
11	COBB	262.55	35.00	105.00	9.00	0.00	0.20	0.00	18.65	1.50
12	DAVIS	250.05	35.00	104.50	23.25	0.00	0.47	0.00	19.95	1.50
16	PALMETTO	244.22	37.25	94.50	39.50	0.00	1.18	0.00	30.55	1.00
5	HILL	234.21	38.00	97.00	18.00	0.00	0.28	0.00	24.00	1.50
9	WILLIAMS	210.88	36.00	93.25	17.00	0.00	0.33	0.00	21.90	1.00
15	COLUMBUS	208.37	36.00	96.50	73.50	0.00	1.34	0.00	22.40	1.75
14	FORREST	179.20	35.00	97.00	37.00	0.00	0.67	0.00	23.10	1.25
7	JUPITER	172.53	44.00	116.50	31.50	0.00	0.52	0.00	39.70	1.00
8	BOSSIER	160.03	34.25	97.00	65.00	0.00	1.35	0.00	15.10	1.50
6	PICKETT 71	158.36	35.00	102.50	22.50	0.00	0.40	0.00	16.40	2.00
3	BRAGG	155.03	35.00	99.75	19.25	0.00	0.25	0.00	22.30	1.00
4	RANSOM	126.69	35.25	94.50	35.75	0.00	0.56	0.00	17.70	1.25
	GRAND MEAN	227.13	36.61	100.16	31.02	0.00	0.58	0.00	24.15	1.34
	STANDARD ERROR OF A VARIETY MEAN	59.34	0.65	2.30	9.21	0.00	0.18	0.00	2.06	0.23
	COEFFICIENT OF VARIATION	52.25%	3.58%	4.59%	59.38%	0.00%	62.42%	0.00%	17.08%	33.63%
	5% LSD VARIETY MEANS (*****NS)	*****	1.87	6.55	26.23	0.00	0.52	0.00	5.87	*****
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.01	0.13	-0.13	0.00	-0.07	0.00	0.39++	-0.28+
DAYS TO FLOWER	0.01	1.00	0.62++	-0.09	-0.09	0.00	-0.08	0.00	0.62++	-0.20
DAYS TO MATURITY	0.13	0.62++	1.00	-0.26+	-0.26+	0.00	-0.29+	0.00	0.47++	-0.09
NODULE NUMBER 1	-0.13	-0.09	-0.26+	1.00	1.00	0.00	0.89++	0.00	-0.18	-0.01
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	-0.07	-0.08	-0.29+	0.89++	0.00	0.00	1.00	0.00	-0.12	-0.03
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.39++	0.62++	0.47++	-0.18	0.00	0.00	-0.12	0.00	1.00	-0.43++
LODGING	-0.28+	-0.20	-0.09	-0.01	0.00	0.00	-0.03	0.00	-0.43++	1.00
SHATTER	0.13	0.04	-0.04	-0.07	0.00	0.00	0.15	0.00	0.10	0.18
HARVEST	0.16	-0.03	0.06	-0.07	0.00	0.00	-0.10	0.00	0.19	-0.29+
PLANTS PER PLANT	0.27+	0.66++	0.76++	-0.13	0.00	0.00	-0.11	0.00	0.74++	-0.31+
PODS PER 100 SEED	0.38++	-0.32++	-0.20	0.20	0.00	0.00	0.17	0.00	-0.09	0.08
QUALITY OF SEED	-0.15	0.34++	0.38++	-0.29+	0.00	0.00	-0.28+	0.00	0.30+	-0.20

TABLE 60 EXPERIMENT 171A YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	3.25	40.75	25.58	21.75	3.50	43.3	21.6
10	CLARK 63	1.25	41.00	19.15	20.50	2.75	42.6	22.7
2	WOODWORTH	2.25	45.75	16.25	19.75	2.75	41.9	22.3
13	IMPROVED PELICAN	2.00	38.25	46.90	15.00	4.50	45.2	21.8
11	COBB	2.25	42.50	21.95	20.25	3.25	42.6	22.3
12	DAVIS	2.50	45.75	25.33	20.25	3.50	44.6	19.8
16	PALMETTO	5.00	42.75	19.25	20.25	2.75	46.2	17.8
5	HILL	3.25	38.75	16.65	17.75	3.50	41.1	21.6
9	WILLIAMS	1.50	40.75	11.63	20.00	3.25	42.6	23.2
15	COLUMBUS	3.00	42.75	16.72	21.00	2.50	44.4	21.0
14	FORREST	1.00	36.50	14.15	17.25	4.25	42.9	21.7
7	JUPITER	1.50	43.25	53.15	17.75	4.00	44.1	19.6
8	BOSSIER	1.75	33.25	16.77	19.00	2.50	44.6	20.8
6	PICKETT 71	2.75	38.25	16.40	17.50	3.25	43.2	20.9
3	BRAGG	1.50	50.00	20.20	18.25	4.25	43.0	21.7
4	RANSOM	1.50	41.00	15.58	18.25	3.00	41.7	23.3

GRAND MEAN 2.27
STANDARD ERROR OF A VARIETY MEAN 0.50
COEFFICIENT OF VARIATION 43.99%
5% LSD VARIETY MEANS (*****NS) 1.42

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

YIELD KG/HA	0.13	0.16	0.27+	0.38++	-0.15
DAYS TO FLOWER	0.04	-0.03	0.66++	-0.32++	0.34++
DAYS TO MATURITY	-0.04	0.06	0.76++	-0.20	0.38++
NODULE NUMBER 1	-0.07	-0.07	-0.13	0.20	-0.29+
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.15	-0.10	-0.11	0.17	-0.28+
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.10	0.19	0.74++	-0.09	0.30+
LOGGING	0.18	-0.29+	-0.31+	0.08	-0.20
SHATTER	1.00	0.02	0.01	0.13	-0.21
PLANTS HARVEST	0.02	1.00	0.18	0.01	0.13
PODS PER PLANT	0.01	0.18	1.00	-0.17	0.29+
100 SEED WEIGHT	0.13	0.01	-0.17	1.00	-0.52++
QUALITY OF SEED	-0.21	0.13	0.29+	-0.52++	1.00

TABLE 61 EXPERIMENT 478

YEAR 1976

REGION - AFRICA
 SITE - DSCHANG
 LATITUDE - 5 DEG. 27 MIN. N
 COOPERATOR - JEAN PRAQUIN
 DATE PLANTED - MARCH 9, 1976
 SOIL PH 5.3
 AMOUNT OF MOISTURE - 1124 MM

COUNTRY - CAMEROON
 ELEVATION - 1450 M
 LONGITUDE - 10 DEG. 3 MIN. E
 DATE HARVESTED - JUNE, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	JUPITER	2838.07	55.00	140.00	0.00	0.00	0.00	0.00	55.75	0.00
4	IMPROVED PELICAN	2760.97	55.00	115.00	0.00	0.00	0.00	0.00	60.25	0.00
7	DAVIS	2202.52	40.00	117.00	0.00	0.00	0.00	0.00	20.75	0.00
2	HAMPTON 266A	1710.76	40.00	104.00	0.00	0.00	0.00	0.00	18.50	0.00
9	FORREST	1389.86	40.00	111.00	0.00	0.00	0.00	0.00	32.25	0.00
5	COBB	1269.84	40.00	111.00	0.00	0.00	0.00	0.00	24.50	0.00
10	COLUMBUS	985.61	40.00	111.00	0.00	0.00	0.00	0.00	28.50	0.00
6	BOSSIER	516.77	40.00	111.00	0.00	0.00	0.00	0.00	17.25	0.00
14	SEMME	516.77	40.00	108.00	0.00	0.00	0.00	0.00	15.00	0.00
13	CALLAND	410.50	40.00	109.00	0.00	0.00	0.00	0.00	23.75	0.00
3	HARDEE	372.99	40.00	119.00	0.00	0.00	0.00	0.00	20.50	0.00
11	WOODWORTH	331.32	40.00	99.00	0.00	0.00	0.00	0.00	19.75	0.00
12	WILLIAMS	293.81	40.00	104.00	0.00	0.00	0.00	0.00	17.25	0.00
8	TRACY	285.47	40.00	93.00	0.00	0.00	0.00	0.00	17.00	0.00
GRAND MEAN		1134.66	42.14	110.86	0.00	0.00	0.00	0.00	26.50	0.00
STANDARD ERROR OF A VARIETY MEAN		237.01	0.00	0.53	0.00	0.00	0.00	0.00	2.14	0.00
COEFFICIENT OF VARIATION		41.78%	0.00%	0.96%	0.00%	0.00%	0.00%	0.00%	16.14%	0.00%
5% LSD VARIETY MEANS (*****=NS)		677.99	0.00	1.53	0.00	0.00	0.00	0.00	6.12	0.00
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.68++	0.59++	0.00	0.00	0.00	0.00	0.74++	0.00
DAYS TO FLOWER		0.68++	1.00	0.65++	0.00	0.00	0.00	0.00	0.91++	0.00
DAYS TO MATURITY		0.59++	0.65++	1.00	0.00	0.00	0.00	0.00	0.63++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	0.74++	0.91++	0.63++	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.83++	0.56++	0.26	0.00	0.00	0.00	0.00	0.59++	0.00
PODS PER PLANT		0.57++	0.58++	0.74++	0.00	0.00	0.00	0.00	0.70++	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 61 EXPERIMENT 478 YEAR 1976 (CONTINUED)

ENTRY NUMBEF	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1	JUPITER	0.00	143.50	57.05	0.00	0.00
4	IMPROVED PELICAN	0.00	248.25	39.45	0.00	0.00
7	DAVIS	0.00	148.00	31.00	0.00	0.00
2	HAMPTON 266A	0.00	185.25	16.83	0.00	0.00
9	FORREST	0.00	120.75	35.80	0.00	0.00
5	COBB	0.00	101.75	23.08	0.00	0.00
10	COLUMBUS	0.00	51.50	43.25	0.00	0.00
6	BOSSIER	0.00	50.50	22.35	0.00	0.00
14	SEMME	0.00	82.75	17.85	0.00	0.00
13	CALLAND	0.00	36.25	22.78	0.00	0.00
3	HARDEE	0.00	18.75	36.97	0.00	0.00
11	WOODWORTH	0.00	38.50	15.38	0.00	0.00
12	WILLIAMS	0.00	36.50	17.30	0.00	0.00
8	TRACY	0.00	63.75	15.58	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	94.71	28.19	0.00	0.00
COEFFICIENT OF VARIATION		0.00%	17.66	4.04	0.00	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	37.28%	28.69%	0.00%	0.00%
			50.50	11.57	0.00	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD		0.83++		0.57++		
KG/HA		0.00		0.00		
DAYS TO FLOWER		0.56++		0.58++		
DAYS TO MATURITY		0.26		0.74++		
NODULE NUMBER 1		0.00		0.00		
NODULE NUMBER 2		0.00		0.00		
NODULE WEIGHT 1		0.00		0.00		
NODULE WEIGHT 2		0.00		0.00		
PLANT		0.00		0.00		
LODGING		0.59++		0.70++		
SHATTER		0.00		0.00		
HARVEST		1.00		0.00		
PLANTS PER PLANT		0.00		0.27+		
100 SEED WEIGHT		0.00		1.00		
QUALITY OF SEED		0.00		0.00		
		0.00		0.00		
				1.00		

TABLE 62

EXPERIMENT 477

YEAR 1976

REGION - AFRICA
 SITE - SANCHOU
 LATITUDE - 5 DEG. 12 MIN. N
 COOPERATOR - JEAN PRAQUIN
 DATE PLANTED - MARCH 22, 1976
 SOIL PH 5.6
 AMOUNT OF MOISTURE - 849 MM

COUNTRY - CAMEROON
 ELEVATION - 730 M
 LONGITUDE - 10 DEG. 3 MIN. E
 DATE HARVESTED - JULY, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	JUPITER	2479.66	0.00	115.00	114.50	235.50	0.50	1.95	76.00	0.00
4	IMPROVED PELICAN	2362.97	0.00	94.00	119.00	194.00	0.45	2.00	65.00	0.00
7	DAVIS	2183.77	0.00	98.00	61.75	145.75	0.23	1.85	32.00	0.00
13	SEMME	2175.43	0.00	94.00	95.50	267.25	0.25	1.85	30.00	0.00
5	COBB	2160.85	0.00	98.00	70.00	172.50	0.23	2.23	35.00	0.00
2	HAMPTON 266A	2125.42	0.00	96.00	125.50	173.75	0.30	2.43	30.00	0.00
9	FORREST	2050.41	0.00	94.00	66.00	172.00	0.15	2.05	40.00	0.00
8	TRACY	2035.82	0.00	90.00	86.75	99.25	0.28	1.38	25.00	0.00
3	HARDEE	1964.98	0.00	98.00	80.25	114.50	0.40	1.58	31.00	0.00
10	COLUMBUS	1706.59	0.00	96.00	91.50	186.75	0.30	2.18	45.00	0.00
6	BOSSIER	1154.40	0.00	94.00	79.50	141.50	0.20	1.68	39.00	0.00
12	CALLAND	966.86	0.00	96.00	38.75	140.00	0.15	1.48	40.00	0.00
11	WOODWORTH	954.36	0.00	90.00	62.50	120.75	0.20	1.80	25.00	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(* - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.00	0.29+	0.34+	0.23	0.31+	0.17	0.24	0.00
DAYS TO FLOWER	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.29+	0.00	1.00	0.00	0.21	0.30+	0.36++	0.10	0.71++	0.00
NODULE NUMBER 1	0.34+	0.00	0.00	0.21	1.00	0.33+	0.62++	0.29+	0.31+	0.00
NODULE NUMBER 2	0.23	0.00	0.30+	0.33+	0.33+	1.00	0.17	0.54++	0.31+	0.00
NODULE WEIGHT 1	0.31+	0.00	0.36++	0.62++	0.62++	0.17	1.00	0.23	0.40++	0.00
NODULE WEIGHT 2	0.17	0.00	0.10	0.29+	0.29+	0.54++	0.23	1.00	0.11	0.00
PLANT	HEIGHT	0.24	0.00	0.71++	0.31+	0.31+	0.40++	0.11	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.39++	0.00	0.00	0.01	0.30+	0.33+	0.12	0.18	0.15	0.00
PODS PER PLANT	0.45++	0.00	0.00	0.39++	0.03	-0.05	0.15	0.11	0.26	0.00
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 62 EXPERIMENT 477 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1	JUPITER	0.00	204.00	23.22	0.00	0.00
4	IMPROVED PELICAN	0.00	281.50	19.75	0.00	0.00
7	DAVIS	0.00	278.25	22.40	0.00	0.00
13	SEMMES	0.00	248.50	13.20	0.00	0.00
5	COBB	0.00	190.25	22.75	0.00	0.00
2	HAMPTON 266A	0.00	221.75	15.30	0.00	0.00
9	FORREST	0.00	252.25	18.38	0.00	0.00
8	TRACY	0.00	190.25	15.83	0.00	0.00
3	HARDEE	0.00	165.75	25.92	0.00	0.00
10	COLUMBUS	0.00	165.25	18.38	0.00	0.00
6	BOSSIER	0.00	156.75	17.90	0.00	0.00
12	CALLAND	0.00	105.25	17.23	0.00	0.00
11	WOODWORTH	0.00	176.00	12.83	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	202.75	18.70	0.00	0.00
COEFFICIENT OF VARIATION		0.00%	14.97	2.41	0.00	0.00
5% LSC VARIETY MEANS (*****=NS)		0.00	14.77%	25.78%	0.00%	0.00%
		0.00	42.94	6.91	0.00	0.00
C O R R E L A T I O N S						
			(+ - PROB=.05		+ - PROB=.01)	
YIELD KG/HA		0.00	0.39++	0.45++	0.00	0.00
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.01	0.39++	0.00	0.00
NODULE NUMBER 1		0.00	0.30+	0.03	0.00	0.00
NODULE NUMBER 2		0.00	0.33+	-0.05	0.00	0.00
NODULE WEIGHT 1		0.00	0.12	0.15	0.00	0.00
NODULE WEIGHT 2		0.00	0.18	0.11	0.00	0.00
PLANT		0.00	0.15	0.26	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 63

EXPERIMENT 236

YEAR 1976

REGION - AFRICA
 SITE - BOSSANGOA
 LATITUDE - 6 DEG. 26 MIN. N
 COOPERATOR - M.L. CARMEN
 DATE PLANTED - JUNE 28, 1976
 AMOUNT OF MOISTURE - 654 MM
 LOCAL VARIETIES - AVOYELLE, ARACATUBA

COUNTRY - CENTRAL AFRICAN EMPIRE
 ELEVATION - 521 M
 LONGITUDE - 17 DEG. 12 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	DAVIS	1779.52	35.25	0.00	0.00	0.00	0.00	0.00	25.75	0.00
7	BOSSIER	1662.83	29.50	0.00	0.00	0.00	0.00	0.00	30.25	0.00
8	WILLIAMS	1537.81	29.25	0.00	0.00	0.00	0.00	0.00	36.50	0.00
4	HARDEE	1529.47	38.00	0.00	0.00	0.00	0.00	0.00	26.75	0.00
13	FORREST	1521.14	32.50	0.00	0.00	0.00	0.00	0.00	35.50	0.00
5	ARACATUBA	1512.80	40.25	0.00	0.00	0.00	0.00	0.00	68.75	0.00
12	IMPROVED PELICAN	1500.30	39.50	0.00	0.00	0.00	0.00	0.00	55.25	0.00
2	AVOYELLE	1487.80	45.50	0.00	0.00	0.00	0.00	0.00	73.75	0.00
1	HAMPTON 266A	1475.29	33.25	0.00	0.00	0.00	0.00	0.00	41.00	0.00
9	CLARK 63	1416.95	29.50	0.00	0.00	0.00	0.00	0.00	35.00	0.00
3	PALMETTO	1371.11	39.25	0.00	0.00	0.00	0.00	0.00	63.75	0.00
6	JUPITER	1246.08	48.25	0.00	0.00	0.00	0.00	0.00	55.25	0.00
10	COBB	1075.21	31.50	0.00	0.00	0.00	0.00	0.00	37.25	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1470.49	36.27	0.00	0.00	0.00	0.00	0.00	44.98	0.00
COEFFICIENT OF VARIATION		171.13	0.55	0.00	0.00	0.00	0.00	0.00	2.45	0.00
5% LST VARIETY MEANS (*****=NS)		23.28%	3.03%	0.00%	0.00%	0.00%	0.00%	0.00%	10.89%	0.00%
5% LST VARIETY MEANS (*****=NS)		*****	1.58	0.00	0.00	0.00	0.00	0.00	7.02	0.00
C O R R E L A T I O N S										
(+ - PROB=-.05 ++ - PROB=-.01)										
YIELD	KG/HA	1.00	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		-0.05	1.00	0.00	0.00	0.00	0.00	0.00	0.68++	0.00
DAYS TO MATURITY		0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	-0.02	0.68++	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.23	0.66++	0.00	0.00	0.00	0.00	0.00	0.62++	0.00
100 SEED WEIGHT		0.04	-0.50++	0.00	0.00	0.00	0.00	0.00	-0.72++	0.00
QUALITY OF SEED		-0.41++	0.06	0.00	0.00	0.00	0.00	0.00	-0.26	0.00

TABLE 63

EXPERIMENT 236

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	DAVIS	0.00	0.00	17.50	22.25	1.75
7	BOSSIER	0.00	0.00	15.00	21.25	2.25
8	WILLIAMS	0.00	0.00	12.75	22.50	1.75
4	HARDEE	0.00	0.00	21.75	21.75	2.25
13	FORREST	0.00	0.00	17.50	20.75	2.25
5	ARACATUBA	0.00	0.00	24.00	12.75	1.25
12	IMPROVED PELICAN	0.00	0.00	23.75	15.50	1.75
2	AVOYELLE	0.00	0.00	30.00	12.50	1.50
1	HAMPTON 266A	0.00	0.00	14.75	23.50	2.50
9	CLARK 63	0.00	0.00	11.75	20.25	3.00
3	PALMETTO	0.00	0.00	19.25	15.25	1.75
6	JUPITER	0.00	0.00	21.00	21.75	4.00
10	COBB	0.00	0.00	13.75	21.25	2.25
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	0.00	18.67	19.33	2.17
COEFFICIENT OF VARIATION		0.00%	0.00	2.10	0.84	0.29
5% 1ST VARIETY MEANS (*****=NS)		0.00	0.00	22.53%	8.65%	26.99%
		0.00	0.00	6.03	2.40	0.84
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD KG/HA		0.00	0.00	0.23	0.04	-0.41++
DAYS TO FLOWER		0.00	0.00	0.66++	-0.50++	0.06
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00
MODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
MODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.62++	-0.72++	-0.26
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	-0.52++	-0.28+
100 SEED WEIGHT		0.00	0.00	-0.52++	1.00	0.39++
QUALITY OF SEED		0.00	0.00	-0.28+	0.39++	1.00

TABLE 64 EXPERIMENT 170 YEAR 1976

REGION - AFRICA
 SITE - LEKANA
 LATITUDE - 2 DEG. 20 MIN. S
 COOPERATOR - IIVETIC OBRAD
 DATE PLANTED - NOVEMBER 25, 1976
 SOIL TYPE - SAND, SILT 2%, CLAY 30%
 FERTILIZER USED (KG/HA) - N 50.0, P 90.0, K 150.0
 AMOUNT OF MOISTURE - 1090 MM

COUNTRY - CONGO
 ELEVATION - 800-850 M
 LONGITUDE - 14 DEG. 20 MIN. E
 DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	BOSSIER	716.81	51.00	104.00	107.00	0.00	1.33	0.00	18.50	1.00
7	JUPIITER	704.31	75.00	125.00	87.00	0.00	0.92	0.00	36.25	1.00
5	HILL	670.97	46.00	92.00	81.50	0.00	1.03	0.00	22.00	1.00
3	BRAGG	668.88	47.00	93.00	165.00	0.00	1.55	0.00	18.00	1.00
4	RANSOM	631.38	47.00	93.00	129.25	0.00	1.10	0.00	21.00	1.00
12	DAVIS	614.71	52.50	110.00	89.25	0.00	1.68	0.00	17.50	1.00
15	COLUMBUS	604.29	46.00	92.00	86.50	0.00	1.20	0.00	22.50	1.00
13	IMPROVED PELICAN	579.28	48.00	95.00	75.25	0.00	0.87	0.00	26.75	1.00
14	CALLAND	562.61	46.00	92.00	68.00	0.00	0.90	0.00	22.25	1.00
1	FORREST	475.09	48.00	100.00	65.50	0.00	0.72	0.00	20.00	1.00
9	WILLIAMS	473.01	46.00	90.00	108.75	0.00	1.35	0.00	20.25	1.00
2	WOODWORTH	460.51	47.00	93.00	67.75	0.00	0.83	0.00	27.00	1.00
16	ESSEX	450.09	46.00	90.00	152.50	0.00	1.43	0.00	19.50	1.00
10	CLARK 63	437.59	42.00	88.00	77.50	0.00	0.75	0.00	20.50	1.00
11	COBB	385.49	52.50	110.00	89.75	0.00	1.08	0.00	19.00	1.00
6	PICKETT 71	329.23	46.00	92.00	73.25	0.00	0.72	0.00	17.00	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		547.77	49.13	97.44	95.23	0.00	1.09	0.00	21.75	1.00
COEFFICIENT OF VARIATION		82.56	0.17	0.00	14.93	0.00	0.23	0.00	2.68	0.00
5% LSD VARIETY MEANS (*****=NS)		30.15	0.70	0.00	31.35	0.00	41.93	0.00	24.66	0.00
		235.18	0.49	0.00	42.51	0.00	*****	0.00	7.64	0.00
CORRELATIONS										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		0.25+		0.21	0.18	0.00	0.24	0.00	0.20	0.00
DAYS TO MATURITY		0.21		0.92++	-0.05	0.00	0.01	0.00	0.50++	0.00
NODULE NUMBER 1		0.18		1.00	-0.10	0.00	0.06	0.00	0.32++	0.00
NODULE NUMBER 2		0.00		-0.05	1.00	0.00	0.69++	0.00	-0.07	0.00
NODULE WEIGHT 1		0.24		0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00		0.01	0.06	0.69++	1.00	0.00	-0.08	0.00
PLANT HEIGHT		0.20		0.00	0.00	0.00	0.00	1.00	0.00	0.00
LODGING		0.00		0.32++	-0.07	0.00	-0.08	0.00	1.00	0.00
SHATTER		0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.00
HARVEST		0.52++		0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.59++		0.20	-0.01	0.00	0.00	0.00	0.04	0.00
100 SEED WEIGHT		0.23		0.23	0.13	0.00	0.16	0.00	0.36++	0.00
QUALITY OF SEED		-0.04		0.16	0.21	0.00	0.17	0.00	0.12	0.00
				0.09	0.18	0.00	-0.11	0.00	0.07	0.00

TABLE 64 EXPERIMENT 170 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BOSSIER	1.00	182.50	7.20	20.38	1.00	42.8	22.5
7	JUPITER	1.00	160.25	10.50	23.65	2.00	41.0	23.8
5	HILL	1.00	181.25	9.25	19.75	1.00	38.8	22.9
3	BRAGG	1.00	138.25	8.45	24.75	1.00	42.2	22.6
4	RANSOM	1.00	167.25	7.28	22.13	3.00	41.9	24.6
12	DAVIS	1.00	185.00	7.43	22.13	1.00	43.2	21.6
15	COLUMBUS	1.00	145.00	9.22	22.20	1.00	42.9	21.4
13	IMPROVED PELICAN	1.00	131.00	9.32	17.05	1.00	42.0	22.8
1	CALLAND	1.00	164.00	6.60	24.85	1.00	44.5	19.6
14	FORREST	1.00	137.25	7.70	18.03	2.00	41.0	22.3
9	WILLIAMS	1.00	149.75	5.05	20.78	1.00	41.7	23.8
2	WOODWORTH	1.00	138.25	5.40	21.58	1.00	42.0	22.6
16	ESSEX	1.00	160.75	7.48	19.58	2.00	44.4	21.4
10	CLARK 63	1.00	137.50	6.85	19.70	1.00	41.2	22.6
11	COBB	1.00	150.00	6.65	20.35	1.00	41.0	22.4
6	PICKETT 71	1.00	124.50	5.95	18.95	2.00	42.0	21.9
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	153.28	7.52	20.99	1.38		
COEFFICIENT OF VARIATION		0.00	13.80	1.23	0.89	0.00		
5% LSD VARIETY MEANS (*****NS)		0.00	18.01%	32.73%	8.53%	0.00%		
		0.00	39.32	*****	2.55	0.00		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.52++	0.59++	0.23	-0.04		
DAYS TO FLOWER		0.00	0.15	0.29+	0.23	0.21		
DAYS TO MATURITY		0.00	0.20	0.23	0.16	0.09		
NODULE NUMBER 1		0.00	-0.01	0.13	0.21	0.18		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.19	0.16	0.17	-0.11		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	0.04	0.36++	0.12	0.07		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	0.17	0.21	-0.01		
PODS PER PLANT		0.00	0.17	1.00	0.02	0.04		
100 SEED WEIGHT		0.00	0.21	0.02	1.00	-0.06		
QUALITY OF SEED		0.00	-0.01	0.04	-0.06	1.00		

TABLE 65 EXPERIMENT 66 YEAR 1976

REGION - AFRICA COUNTRY - EGYPT
 SITE - BAHEEM ELEVATION - 24 M
 LATITUDE - 30 DEG. N LONGITUDE - 31 DEG. E
 COOPERATOR - ALI ABDEL AZIZ DATE HARVESTED - SEPTEMBER, 1976
 DATE PLANTED - MAY 17, 1976
 SOIL TYPE - CLAY LOAM, PH 8.0
 FERTILIZER USED (KG/HA) - N 25.00, P 56.25
 NUMBER OF IRRIGATIONS - 7-9
 SUBSTITUTE VARIETY - CLARK

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
16	ESSEX	3406.10	57.00	135.00	200.25	175.00	3.14	3.75	67.00	1.00
8	BOSSIER	2948.51	68.75	158.00	134.00	133.75	2.09	2.56	105.25	2.75
4	RANSOM	2767.22	64.50	153.25	202.25	177.25	2.44	2.12	86.50	1.50
11	DAVIS	2558.84	68.00	134.25	107.25	150.00	1.79	2.73	107.25	1.75
7	CUTLER 71	2538.01	40.50	105.75	115.25	223.75	0.46	2.73	76.50	1.00
5	HILL	2485.91	62.25	129.00	154.25	102.50	1.26	1.31	72.00	1.00
6	PICKETT 71	2398.40	67.75	153.50	72.50	96.00	0.89	1.27	83.75	1.50
12	FORREST	2340.05	58.75	132.50	147.50	153.75	1.56	1.76	77.00	1.00
3	BRAGG	2292.12	67.50	143.75	227.00	190.00	2.16	2.59	113.50	1.00
10	CLARK 63	2265.04	36.50	106.25	84.75	281.50	0.33	3.81	80.50	1.00
9	WILLIAMS	2156.68	34.00	98.50	88.25	229.25	0.45	3.43	79.00	1.00
15	CLARK	1971.23	36.25	105.25	75.75	142.25	0.34	1.40	72.75	1.00
1	CALLAND	1885.79	34.75	106.00	62.50	142.25	0.34	1.89	68.25	1.00
2	WOODNORTH	1654.50	35.75	94.75	115.50	201.25	0.30	3.05	75.75	1.00
14	BEESON	1619.07	33.25	93.50	52.00	137.25	0.28	1.39	68.00	1.00
13	WELLS	1571.15	33.00	93.75	52.50	123.00	0.38	1.89	61.25	1.00
122										
GRAND MEAN										
2303.66										
STANDARD ERROR OF A VARIETY MEAN										
211.45										
COEFFICIENT OF VARIATION										
18.36%										
5% LSD VARIETY MEANS (*****=NS)										
602.29										
C O R R E L A T I O N S										
(+ - PROB=.05 ** - PROB=.01)										
YIELD										
KG/HA										
1.00										
DAYS TO FLOWER										
0.52++										
1.00										
DAYS TO MATURITY										
0.91++										
0.54++										
NODULE NUMBER 1										
0.62++										
0.43++										
NODULE NUMBER 2										
0.28+										
NODULE WEIGHT 1										
0.68++										
NODULE WEIGHT 2										
0.38++										
PLANT										
HEIGHT										
0.36++										
LODGING										
0.20										
SHATTER										
0.09										
HARVEST										
0.47++										
PLANTS										
PER PLANT										
0.49++										
PODS PER										
100 SEED										
WEIGHT										
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OF SEED										
-0.19										
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0.41										

TABLE 65 EXPERIMENT 66 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	ESSEX	1.00	194.00	38.75	14.50	1.75	42.1	21.0
8	BOSSIER	1.00	178.75	49.00	17.93	2.00	43.4	20.5
4	RANSOM	1.00	185.75	47.00	17.83	1.75	42.0	22.5
11	DAVIS	2.00	184.75	44.00	16.48	2.00	41.1	21.9
7	CUTLER 71	1.00	193.50	24.00	16.50	1.75	41.6	21.6
5	HILL	1.00	195.75	29.00	14.50	1.00	39.2	21.1
6	PICKETT 71	1.00	198.25	43.25	15.63	1.75	37.7	22.8
12	FORREST	1.00	177.50	31.50	11.65	3.00	39.7	21.6
3	BRAGG	1.00	158.25	44.50	18.50	1.25	42.8	21.4
10	CLARK 63	1.00	175.50	21.25	14.80	1.50	40.6	22.0
9	WILLIAMS	1.00	179.50	27.75	15.28	1.50	40.9	23.0
15	CLARK	1.00	190.25	15.25	16.58	1.75	40.1	20.8
1	CALLAND	1.25	184.75	19.50	17.73	2.50	38.0	21.7
2	WOODWORTH	1.00	190.25	27.25	16.15	2.25	39.0	24.3
14	BEESON	1.00	193.75	21.00	17.95	2.00	41.2	22.9
13	WELLS	1.00	189.50	28.50	13.78	2.00	40.1	20.8

GRAND MEAN
STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% LSD VARIETY MEANS (*****=NS)

1.08
0.06
11.59%
0.18

185.63
9.16
9.87%

31.97
4.88
30.55%
13.91

15.98
0.78
9.71%
2.21

1.86
0.29
30.74%
0.81

C O R R E L A T I O N S

(+ - PROB=.05) ++ - PROB=.01)

YIELD KG/HA	0.09	0.47++	0.49++	0.09	-0.19
DAYS TO FLOWER	0.23	-0.11	0.69++	0.06	-0.11
DAYS TO MATURITY	0.09	-0.11	0.64++	0.11	-0.12
NODULE NUMBER 1	-0.04	0.14	0.45++	0.14	-0.13
NODULE NUMBER 2	-0.05	0.17	0.04	0.11	-0.10
NODULE WEIGHT 1	0.11	0.07	0.60++	0.07	-0.03
NODULE WEIGHT 2	0.07	0.18	0.17	0.06	-0.16
PLANT HEIGHT	0.33++	-0.12	0.52++	0.34++	-0.13
LOGGING	0.17	-0.11	0.44++	0.30+	0.21
SHATTER	1.00	0.03	0.21	0.08	0.06
PLANTS HARVEST	0.03	1.00	0.01	0.08	-0.13
PLANT WEIGHT	0.21	0.01	1.00	0.24	-0.09
100 SEED WEIGHT	0.08	0.08	0.24	1.00	-0.28+
QUALITY OF SEED	0.06	-0.13	-0.09	-0.28+	1.00

TABLE 66 EXPERIMENT 109 YEAR 1976

REGION - AFRICA COUNTRY - EGYPT
 SITE - GIZA ELEVATION - 41 M
 LATITUDE - 29 DEG. N LONGITUDE - 31 DEG. E
 COOPERATOR - SAMIA ALI MAHMOUD
 DATE PLANTED - DECEMBER 8, 1976 DATE HARVESTED - MAY, 1977
 SOIL TYPE - CLAY LOAM, PH 8.0
 FERTILIZER USED (KG/HA) - N 108.0, P 37.5
 NUMBER OF IRRIGATIONS - 4
 SUBSTITUTE VARIETY - CLARK

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	CALLAND	5021.84	83.00	165.00	0.00	0.00	0.00	0.00	36.00	1.00
6	WELLS	4300.86	88.00	159.00	0.00	0.00	0.00	0.00	12.75	1.00
3	CUTLER 71	4092.48	88.00	165.00	0.00	0.00	0.00	0.00	70.50	1.00
4	WILLIAMS	3971.63	83.00	159.00	0.00	0.00	0.00	0.00	24.25	1.00
9	AMSOY 71	3813.26	91.00	159.00	0.00	0.00	0.00	0.00	21.75	1.00
2	WOODWORTH	3804.93	84.00	159.00	0.00	0.00	0.00	0.00	28.75	1.00
7	BEESON	3579.88	88.00	174.00	0.00	0.00	0.00	0.00	42.25	1.00
5	CLARK 63	3371.51	88.00	159.00	0.00	0.00	0.00	0.00	22.75	1.00
10	HODGSON	3167.30	89.00	160.50	0.00	0.00	0.00	0.00	34.25	1.00
13	ALTONA	2608.85	81.00	154.00	0.00	0.00	0.00	0.00	21.00	1.00
11	HARK	2096.25	81.00	154.00	0.00	0.00	0.00	0.00	19.50	1.00
8	CLARK	1508.63	81.00	159.00	0.00	0.00	0.00	0.00	37.75	1.00
12	SWIFT	770.99	79.00	154.00	0.00	0.00	0.00	0.00	15.50	1.00
GRAND MEAN										
3239.11										
STANDARD ERROR OF A VARIETY MEAN										
529.55										
COEFFICIENT OF VARIATION										
32.70%										
5% LSD VARIETY MEANS (*****=NS)										
1518.86										
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.38++	0.43++	0.00	0.00	0.00	0.00	0.22	0.00
DAYS TO FLOWER	0.38++	0.43++	1.00	0.45++	0.00	0.00	0.00	0.00	0.21	0.00
DAYS TO MATURITY	0.43++	0.45++	0.45++	1.00	0.00	0.00	0.00	0.00	0.62++	0.00
NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.89++	0.89++	0.30+	0.38++	0.00	0.00	0.00	0.00	0.15	0.00
100 SEED WEIGHT	0.41++	0.41++	0.35+	0.53++	0.00	0.00	0.00	0.00	0.19	0.00
QUALITY OF SEED	-0.11	-0.01	-0.01	-0.05	0.00	0.00	0.00	0.00	-0.04	0.00

EXPERIMENT 109	YEAR 1976	(CONTINUED)
TABLE 66		

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLARD	1.00	10.00	22.70	17.13	1.25	38.8	20.7
6	WELLS	1.00	10.00	19.20	15.58	1.75	41.7	20.3
3	CUTLER 71	1.00	10.00	16.25	15.88	1.75	39.5	20.5
4	WILLIAMS	1.00	10.00	17.50	16.43	1.25	42.0	20.1
9	AMSOY 71	1.00	10.00	19.60	15.83	1.50	41.7	19.5
2	WOODWORTH	1.00	10.00	18.58	14.68	2.00	38.2	20.8
7	BEESON	1.00	10.00	14.95	20.48	2.00	43.2	19.8
5	CLARK 63	1.00	10.00	14.15	14.45	2.00	39.4	20.5
10	HODGSON	1.00	10.00	12.25	17.98	1.75	43.9	17.4
13	ALTONA	1.00	10.00	8.55	15.93	2.50	45.8	15.9
11	HARK	1.00	10.00	12.13	15.18	1.50	44.7	18.8
8	CLARK	1.00	10.00	8.10	13.90	1.25	41.0	19.0
12	SWIFT	1.00	10.00	6.70	12.20	2.00	44.4	16.5
GRAND MEAN								
10.00								
14.67								
15.82								
1.07								
0.30								
30.86%								
3.06								
34.25%								

STANDARD ERROR OF A VARIETY MEAN								
0.00%								
COEFFICIENT OF VARIATION								
0.00								
5% LSC VARIETY MEANS (*****=NS)								
C O R R E L A T I O N S								
(+ - PROB=.05 ** - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
0.00								
0.89**								
DAYS TO MATURITY								
0.00								
0.30+								
0.41**								
NODULE NUMBER 1								
0.00								
0.38**								
0.53**								
NODULE NUMBER 2								
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0.00								
SHATTER								
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PLANTS HARVEST								
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PODS PER PLANT								
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0.00								
100 SEED WEIGHT								
0.00								
0.23								
1.00								
QUALITY OF SEED								
0.00								
-0.18								
-0.23								
1.00								

TABLE 67 EXPERIMENT 67 YEAR 1976

REGION - AFRICA COUNTRY - EGYPT
 SITE - SEDS ELEVATION - 41 M
 LATITUDE - 29 DEG. N LONGITUDE - 31 DEG. E
 COOPERATOR - ALI ABDEL AZIZ
 DATE PLANTED - JUNE 1, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL TYPE - CLAY LOAM, PH 8.0
 FERTILIZER USED (KG/HA) - N 75.0, P 37.5
 NUMBER OF IRRIGATIONS - 5-6
 SUBSTITUTE VARIETY - CLARK

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
10	CLARK 63	2667.20	30.75	112.50	30.50	26.00	0.05	0.22	68.75	1.25
4	RANSOM	2271.29	48.75	136.25	33.00	59.75	0.43	0.57	75.00	2.00
11	DAVIS	2250.45	51.00	128.75	69.75	87.25	1.05	1.70	76.25	2.00
12	FORREST	2208.77	43.00	116.25	20.25	51.50	0.14	0.60	66.25	1.00
7	CUTLER 71	2167.10	30.50	97.50	25.00	18.75	0.02	0.14	52.50	1.00
5	HILL	2062.91	46.50	110.00	24.75	38.50	0.27	0.39	60.00	1.00
15	CLARK	1979.56	29.75	100.00	22.50	32.25	0.04	0.62	56.25	1.00
16	ESSEX	1950.39	45.00	127.50	31.00	58.25	0.29	0.87	51.25	1.00
9	WILLIAMS	1858.54	32.00	90.00	17.50	32.25	0.01	0.32	53.75	1.00
6	PICKETT 71	1729.51	60.25	136.25	15.25	92.25	0.04	1.08	67.50	1.75
14	BEESON	1637.83	28.50	88.75	27.25	28.75	0.02	0.24	50.00	1.00
13	WELLS	1604.49	28.25	90.00	19.75	31.25	0.03	0.36	42.50	1.00
3	BRAGG	1562.81	60.50	138.75	21.25	28.50	0.26	0.19	96.25	2.25
1	CALLAND	1521.14	32.25	101.25	20.75	27.75	0.03	0.61	66.25	1.00
2	WOODWORTH	1458.62	30.75	85.00	21.75	19.00	0.03	0.10	52.50	1.00
8	BOSSIER	1229.41	60.50	142.50	51.75	80.25	0.91	0.73	93.75	2.25
GRAND MEAN		1884.75	41.14	112.58	28.25	44.52	0.24	0.55	64.30	1.34
STANDARD ERROR OF A VARIETY MEAN		235.38	1.21	2.89	14.31	15.52	0.22	0.25	3.35	0.19
COEFFICIENT OF VARIATION		24.98%	5.86%	5.14%	101.28%	69.72%	177.91%	93.13%	10.41%	28.69%
5% LSD VARIETY MEANS (*****=NS)		670.45	3.44	8.25	*****	44.20	0.61	0.73	9.54	0.55
C O R R E L A T I O N S										
YIELD		KG/HA								
DAYS TO FLOWER		1.00	-0.08	0.04	-0.06	0.09	-0.06	0.06	-0.05	-0.03
DAYS TO MATURITY		-0.08	1.00	0.90++	0.18	0.49++	0.46++	0.33++	0.71++	0.67++
NODULE NUMBER 1		0.04	0.90++	1.00	0.20	0.51++	0.44++	0.38++	0.73++	0.70++
NODULE NUMBER 2		-0.06	0.18	0.20	1.00	0.33++	0.82++	0.41++	0.14	0.16
NODULE WEIGHT 1		0.09	0.49++	0.51++	0.33++	1.00	0.44++	0.83++	0.32++	0.28+
NODULE WEIGHT 2		-0.06	0.46++	0.44++	0.82++	0.44++	1.00	0.51++	0.31+	0.38++
NODULE HEIGHT		0.06	0.33++	0.38++	0.41++	0.83++	0.51++	1.00	0.22	0.17
PLANT		-0.05	0.71++	0.73++	0.14	0.32++	0.31+	0.22	1.00	0.72++
LOGGING		-0.03	0.67++	0.70++	0.16	0.28+	0.38++	0.17	0.72++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.32+	-0.28+	-0.21	0.06	0.08	-0.09	0.04	-0.15	-0.10
PODS PER PLANT		0.22	0.44++	0.51++	0.10	0.38++	0.26+	0.32+	0.26+	0.39++
100 SEED WEIGHT		0.18	-0.07	0.02	0.01	-0.04	0.07	0.08	0.14	0.14
QUALITY OF SEED		-0.35++	-0.20	-0.35++	-0.15	-0.36++	-0.23	-0.39++	-0.04	-0.10

TABLE 67 EXPERIMENT 67 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
10	CLARK 63	1.00	216.25	23.50	13.27	1.50	38.5	22.8
4	RANSON	1.00	228.50	34.50	14.70	2.00	39.8	25.0
11	DAVIS	1.00	225.00	29.25	14.64	1.00	40.3	22.2
12	FORREST	1.00	211.75	18.75	15.26	2.25	39.2	22.2
7	CUTLER 71	1.00	209.50	18.00	15.42	1.75	40.5	23.5
5	HILL	1.00	196.00	21.00	12.21	2.00	38.8	22.7
15	CLARK	1.00	243.00	17.75	16.76	2.00	40.6	19.8
16	ESSEX	1.00	178.50	35.50	13.21	1.00	40.4	22.0
9	WILLIAMS	1.00	219.00	15.00	14.17	2.75	40.6	21.9
6	PICKETT 71	1.00	200.50	30.25	13.60	1.25	38.9	22.6
14	BEESON	1.00	204.75	20.00	14.50	2.75	40.3	21.3
13	WELLS	1.00	209.25	18.00	12.33	2.00	39.5	23.5
3	BRAGG	1.00	191.00	29.50	13.84	2.75	41.8	20.0
1	CALLAND	1.00	194.50	15.50	15.73	2.50	40.0	20.5
2	WOODWORTH	1.00	203.50	22.00	12.64	3.00	40.0	24.9
8	BOSSIER	1.00	170.75	25.75	14.77	2.25	42.4	20.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	206.36	23.39	14.19	2.05		
COEFFICIENT OF VARIATION		0.00	13.44	4.49	0.64	0.28		
5% LSD VARIETY MEANS (*****=NS)		0.00	13.03%	38.35%	9.07%	27.57%		
		0.00	*****	12.78	1.83	0.80		
C O R R E L A T I O N S								
		(+ - PROB=.05			+ - PROB=.01)			
YIELD		0.00	0.32+	0.22	0.18	-0.35++		
DAYS TO FLOWER		0.00	-0.28+	0.44++	-0.07	-0.20		
DAYS TO MATURITY		0.00	-0.21	0.51++	0.02	-0.35++		
NODULE NUMBER 1		0.00	0.06	0.10	0.01	-0.15		
NODULE NUMBER 2		0.00	0.08	0.38++	-0.04	-0.36++		
NODULE WEIGHT 1		0.00	-0.09	0.26+	0.07	-0.23		
NODULE WEIGHT 2		0.00	0.04	0.32+	0.08	-0.39++		
PLANT		0.00	-0.15	0.26+	0.14	-0.04		
LODGING		0.00	-0.10	0.39++	0.10	-0.10		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.22	0.09	-0.02		
PODS PER PLANT		0.00	-0.22	1.00	-0.15	-0.19		
100 SEED WEIGHT		0.00	-0.15	-0.15	1.00	-0.13		
QUALITY OF SEED		0.00	-0.02	-0.19	-0.13	1.00		

TABLE 68 EXPERIMENT 53 YEAR 1976

REGION - AFRICA COUNTRY - ETHIOPIA
 SITE - AWASSA ELEVATION - 1700 M
 LATITUDE - 7 DEG. N LONGITUDE - 38 DEG. 30 MIN. E
 COOPERATOR - AWASSA EXPERIMENT STATION
 DATE PLANTED - JUNE 16, 1976 DATE HARVESTED - NOVEMBER, 1976
 SOIL TYPE - SAND 37.0%, SILT 33.4%, CLAY 15.2%, PH 6.1
 FERTILIZER USED (KG/HA) - N 18.0, P 46.0
 AMOUNT OF MOISTURE - 747 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
5	HILL	2638.03	69.00	159.00	129.50	211.75	0.00	0.00	41.25	0.00
13	IMPROVED PELICAN	2100.42	90.00	175.00	127.50	209.50	0.00	0.00	87.50	0.00
12	DAVIS	1919.13	70.00	150.75	146.75	179.00	0.00	0.00	36.50	0.00
15	COLUMBUS	1837.87	47.50	159.00	259.25	292.00	0.00	0.00	39.00	0.00
11	COBB	1833.70	66.25	159.00	155.00	199.50	0.00	0.00	43.75	0.00
16	ESSEX	1587.82	58.00	159.00	232.50	221.25	0.00	0.00	38.00	0.00
14	FORREST	1479.46	58.00	159.00	147.75	269.25	0.00	0.00	38.75	0.00
4	RANSON	1279.42	57.75	159.00	323.50	254.25	0.00	0.00	27.75	0.00
9	WILLIAMS	1256.50	53.00	146.50	262.00	233.00	0.00	0.00	30.25	0.00
1	CALLAND	1212.74	44.75	159.00	148.75	169.25	0.00	0.00	30.75	0.00
7	CUTLER 71	1181.49	47.50	159.00	234.25	202.75	0.00	0.00	29.75	0.00
8	BOSSIER	1104.39	57.75	159.00	240.25	215.00	0.00	0.00	35.00	0.00
6	PICKETT 71	1050.21	58.00	148.00	94.25	136.50	0.00	0.00	23.25	0.00
10	CLARK 63	991.86	46.50	156.25	210.00	181.75	0.00	0.00	29.25	0.00
2	WOODWORTH	954.36	52.50	135.25	188.00	122.50	0.00	0.00	30.00	0.00
3	BRAGG	750.15	58.00	159.00	128.50	213.75	0.00	0.00	32.00	0.00
GRAND MEAN		1448.60	58.41	156.36	189.23	206.94	0.00	0.00	37.05	0.00
STANDARD ERROR OF A VARIETY MEAN		150.06	2.50	2.10	20.92	23.86	0.00	0.00	1.92	0.00
COEFFICIENT OF VARIATION		20.72%	8.56%	2.69%	22.11%	23.06%	0.00%	0.00%	10.37%	0.00%
5% LSE VARIETY MEANS (*****=NS)		427.42	7.12	5.98	59.60	67.96	0.00	0.00	5.47	0.00
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.48++	0.27+	-0.25+	0.12	0.00	0.00	0.53++	0.00
DAYS TO FLOWER	0.48++	1.00	0.38++	0.38++	-0.34++	0.02	0.00	0.00	0.75++	0.00
DAYS TO MATURITY	0.27+	0.27+	1.00	1.00	-0.06	0.35++	0.00	0.00	0.61++	0.00
NODULE NUMBER 1	-0.25+	-0.25+	-0.34++	-0.06	1.00	0.44++	0.00	0.00	-0.26+	0.00
NODULE NUMBER 2	0.12	0.12	0.02	0.35++	0.44++	1.00	0.00	0.00	0.15	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	0.53++	0.75++	0.61++	-0.26+	0.15	0.00	0.00	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.32+	0.32+	-0.09	-0.21	-0.10	-0.18	0.00	0.00	-0.06	0.00
PLANTS	0.56++	0.56++	0.58++	0.39++	-0.13	0.10	0.00	0.00	0.68++	0.00
PODS PER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY	OF SEED	-0.46++	-0.23	0.09	-0.01	-0.11	0.00	0.00	-0.22	0.00

TABLE 68 EXPERIMENT 53 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
5	HILL	0.00	154.00	35.75	0.00	1.00	41.2	17.7
13	IMPROVED PELICAN	0.00	99.50	58.60	0.00	1.25	43.9	17.8
12	DAVIS	0.00	99.50	29.43	0.00	1.00	41.1	20.8
15	COLUMBUS	0.00	107.00	31.38	0.00	1.00	44.9	18.0
11	COBB	0.00	126.00	35.90	0.00	1.00	39.5	19.5
16	ESSEX	0.00	162.50	17.48	0.00	1.00	42.6	19.5
14	FORREST	0.00	112.75	20.58	0.00	1.00	40.9	19.4
4	RANSOM	0.00	146.75	26.03	0.00	1.75	41.3	21.4
9	WILLIAMS	0.00	110.25	21.60	0.00	1.25	43.1	18.7
1	CALLAND	0.00	134.00	17.88	0.00	2.50	44.1	17.8
7	CUTLER 71	0.00	99.50	21.15	0.00	1.00	44.0	18.0
8	BOSSIER	0.00	131.75	17.68	0.00	1.50	43.4	19.4
6	PICKETT 71	0.00	129.00	15.83	0.00	1.50	41.4	20.5
10	CLARK 63	0.00	118.50	19.13	0.00	1.50	42.5	18.9
2	WOODWORTH	0.00	161.25	17.60	0.00	1.25	42.3	18.4
3	BRAGG	0.00	121.75	12.98	0.00	2.00	42.6	18.0
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	125.88	24.93	0.00	1.34		
COEFFICIENT OF VARIATION		0.00%	8.94	5.06	0.00	0.25		
5% LSD VARIETY MEANS (*****=NS)		0.00	14.20%	40.61%	0.00%	37.93%		
			25.45	14.42	0.00	0.73		
C O R R E L A T I O N S								
			(+ - PROB=.05		+ + - PROB=.01)			
YIELD		0.00	0.32+	0.56++	0.00	-0.46++		
DAYS TO FLOWER		0.00	-0.09	0.58++	0.00	-0.23		
DAYS TO MATURITY		0.00	-0.21	0.39++	0.00	0.09		
NODULE NUMBER 1		0.00	-0.10	-0.13	0.00	-0.01		
NODULE NUMBER 2		0.00	-0.18	0.10	0.00	-0.11		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT		0.00	-0.06	0.68++	0.00	-0.22		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.13	0.00	-0.13		
PODS PER PLANT		0.00	-0.13	1.00	0.00	-0.21		
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00		
QUALITY OF SEED		0.00	-0.13	-0.21	0.00	1.00		

TABLE 69 EXPERIMENT 54 YEAR 1976

REGION - AFRICA COUNTRY - ETHIOPIA
 SITE - BAKO ELEVATION - 1220 M
 LATITUDE - 9 DEG. 8 MIN. N LONGITUDE - 36 DEG. 24 MIN. E
 COOPERATORS - H.M. TEKLEMARIAM, TADESSE
 DATE PLANTED - JULY 2, 1976 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - SAND 14-34%, SILT 8-34%, CLAY 44-68%, PH 5.1-5.9
 FERTILIZER USED (KG/HA) - N 50.0, P 22.0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	PICKETT 71	1825.36	0.00	0.00	62.00	63.25	3.90	0.97	37.75	0.00
12	DAVIS	1696.17	0.00	0.00	68.75	67.00	5.80	1.00	39.25	0.00
14	FORREST	1583.65	0.00	0.00	103.75	112.00	5.67	1.15	47.75	0.00
15	COLUMBUS	1250.25	0.00	0.00	216.00	173.25	4.65	1.73	51.00	0.00
13	IMPROVED PELICAN	1175.23	0.00	0.00	41.00	48.75	6.37	0.62	40.00	0.00
5	HILL	1108.55	0.00	0.00	89.50	98.25	4.98	0.92	34.50	0.00
16	ESSEX	1083.55	0.00	0.00	168.50	197.00	4.20	2.38	46.25	0.00
9	WILLIAMS	1058.54	0.00	0.00	128.25	179.50	5.90	1.93	28.75	0.00
2	WOODWORTH	1041.87	0.00	0.00	119.00	125.25	4.23	1.40	27.75	0.00
8	BOSSIER	1033.54	0.00	0.00	141.00	151.25	5.93	1.68	27.75	0.00
11	COBB	1016.87	0.00	0.00	71.75	70.75	5.10	1.05	32.50	0.00
7	CUTLER 71	1000.20	0.00	0.00	83.50	117.00	5.50	1.00	29.00	0.00
4	RANSOM	1000.20	0.00	0.00	116.50	138.25	5.80	1.35	41.75	0.00
10	CLARK 63	875.17	0.00	0.00	84.50	104.50	5.12	1.08	29.50	0.00
1	CALLAND	783.49	0.00	0.00	70.00	109.50	4.15	1.35	35.00	0.00
3	BAGG	716.81	0.00	0.00	71.50	82.50	4.27	1.00	35.25	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSE VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=-.05 ++ - PROB=-.01)										
YIELD	KG/HA	1.00	0.00	0.00	0.02	-0.11	-0.02	0.03	0.30+	0.00
DAYS TO FLOWER	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	0.02	0.00	0.00	0.00	1.00	0.68++	-0.09	0.54++	0.25+	0.00
NODULE NUMBER 2	-0.11	0.00	0.00	0.00	0.68++	1.00	-0.05	0.76++	0.04	0.00
NODULE WEIGHT 1	-0.02	0.00	0.00	0.00	-0.09	-0.05	1.00	-0.21	-0.04	0.00
NODULE WEIGHT 2	0.03	0.00	0.00	0.00	0.54++	0.76++	-0.21	1.00	0.10	0.00
PLANT	HEIGHT	0.30+	0.00	0.00	0.25+	0.04	-0.04	0.10	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	-0.15	0.00	0.00	0.00	-0.03	-0.03	0.17	-0.08	-0.07	0.00
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.37++	0.29+	0.13	0.17	-0.13	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 69 EXPERIMENT 54 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
6	PICKETT 71	0.00	0.00	10.50	16.50	0.00	--	--
12	DAVIS	0.00	0.00	9.00	19.00	0.00	45.0	21.8
14	PORREST	0.00	0.00	8.25	17.50	0.00	42.6	21.9
15	COLUMBUS	0.00	0.00	8.50	19.50	0.00	45.9	19.9
13	IMPROVED PELICAN	0.00	0.00	9.25	16.50	0.00	44.4	21.0
5	HILL	0.00	0.00	5.50	20.00	0.00	41.9	21.4
16	ESSEX	0.00	0.00	6.75	19.50	0.00	--	--
9	WILLIAMS	0.00	0.00	8.50	20.50	0.00	45.0	20.9
2	WOODWORTH	0.00	0.00	9.50	20.50	0.00	43.7	21.1
8	BOSSIER	0.00	0.00	8.75	20.00	0.00	--	--
11	COBB	0.00	0.00	7.25	18.50	0.00	42.8	21.7
7	CUTLER 71	0.00	0.00	11.00	18.50	0.00	44.9	20.3
4	RANSOM	0.00	0.00	9.25	22.25	0.00	44.9	22.3
10	CLARK 63	0.00	0.00	8.50	19.50	0.00	44.6	20.4
1	CALLAND	0.00	0.00	8.00	19.00	0.00	45.0	19.3
3	BRAGG	0.00	0.00	7.50	18.00	0.00	44.9	20.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	0.00	8.50	19.08	0.00	0.00	0.00
COEFFICIENT OF VARIATION		0.00	0.00	1.19	0.83	0.00	0.83	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	0.00	27.97%	8.68%	0.00%	0.00%	0.00%
		0.00	0.00	*****	2.36	0.00	0.00	0.00
C O R R E L A T I O N S								
		(+ - PROB=.05			++ - PROB=.01)			
YIELD		0.00	0.00	0.05	-0.15	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	-0.03	0.37++	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	-0.03	0.29+	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.17	0.13	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	-0.08	0.17	0.00	0.00	0.00
PLANT		0.00	0.00	-0.07	-0.13	0.00	0.00	0.00
HEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	-0.01	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	-0.01	1.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00	0.00	1.00

TABLE 70 EXPERIMENT 56 YEAR 1976

REGION - AFRICA
 SITE - JIMMA
 LATITUDE - 7 DEG. 46 MIN. N
 COORDINATES - M. SHEKOUR, E. ANDE
 DATE PLANTED - JUNE 9, 1976
 SOIL TYPE - SAND 6.75%, SILT 23.75%, CLAY 69.50%, PH 6.2
 FERTILIZER USED (KG/HA) - P 36.8
 AMOUNT OF MOISTURE - 1067 MM
 LOCAL VARIETY - KWANYIKYO
 COUNTRY - ETHIOPIA
 ELEVATION - 1756 M
 LONGITUDE - 36 DEG. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
5	HILL	2207.52	61.00	130.00	125.25	122.50	0.00	0.00	50.75	1.50
11	COBB	2072.91	61.00	133.25	100.00	133.75	0.00	0.00	47.00	1.00
16	ESSEX	2031.24	51.00	124.25	190.25	153.75	0.00	0.00	42.25	1.50
13	IMPROVED PELICAN	1841.20	79.00	157.00	65.00	85.25	0.00	0.00	90.25	2.00
14	PORREST	1802.03	58.00	144.25	107.75	109.25	0.00	0.00	40.00	1.50
15	COLUMBUS	1711.18	39.00	120.25	210.50	171.25	0.00	0.00	39.25	1.75
12	DAVIS	1682.84	68.00	143.75	92.50	119.50	0.00	0.00	46.75	1.00
8	BOSSIER	1654.50	51.00	119.00	143.50	121.00	0.00	0.00	38.25	1.00
4	RANSON	1483.63	51.00	116.75	184.25	148.25	0.00	0.00	35.00	1.50
6	PICKETT 71	1371.94	51.00	120.25	131.75	130.25	0.00	0.00	35.00	1.75
9	WILLIAMS	1258.58	39.00	103.00	191.50	145.00	0.00	0.00	31.75	1.75
10	CLARK 63	1061.88	39.00	110.75	210.75	120.50	0.00	0.00	34.75	2.25
1	CALLAND	1047.71	44.50	116.00	121.75	101.75	0.00	0.00	30.00	1.50
7	KWANYIKYO	996.03	39.00	119.50	117.50	109.75	0.00	0.00	36.75	1.75
3	BRAGG	898.51	61.00	123.50	166.25	120.00	0.00	0.00	37.00	2.25
2	WOODWORTH	827.67	39.00	98.00	157.00	148.75	0.00	0.00	28.75	1.75
GRAND MEAN		1496.84	51.97	123.72	144.72	127.53	0.00	0.00	41.47	1.61
STANDARD ERROR OF A VARIETY MEAN		159.02	1.38	2.61	17.69	18.17	0.00	0.00	2.59	0.25
COEFFICIENT OF VARIATION		21.25%	5.29%	4.22%	24.45%	28.50%	0.00%	0.00%	12.51%	31.69%
5% LSD VARIETY MEANS (*****=NS)		452.95	3.92	7.43	50.40	*****	0.00	0.00	7.39	0.73

C O R R E L A T I O N S
 (+ - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	1.00	0.45++	0.59++	-0.11	0.16	0.00	0.00	0.53++	-0.27+
DAYS TO FLOWER	0.45++	1.00	0.83++	0.83++	-0.48++	-0.25+	0.00	0.00	0.73++	-0.16
DAYS TO MATURITY	0.59++	0.83++	1.00	1.00	-0.51++	-0.22	0.00	0.00	0.77++	-0.12
NODULE NUMBER 1	-0.11	-0.48++	-0.51++	-0.51++	1.00	0.63++	0.00	0.00	-0.40++	0.18
NODULE NUMBER 2	0.16	-0.25+	-0.22	-0.22	0.63++	1.00	0.00	0.00	-0.21	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.53++	0.73++	0.77++	0.77++	-0.40++	-0.21	0.00	0.00	1.00	0.04
LODGING	-0.27+	-0.16	-0.12	-0.12	0.18	0.00	0.00	0.00	0.04	1.00
SHATTER	-0.32+	-0.21	-0.10	-0.10	-0.04	0.15	0.00	0.00	0.07	0.15
PLANTS HARVEST	-0.26+	-0.14	-0.32++	-0.32++	0.19	0.18	0.00	0.00	-0.34++	-0.06
PODS PER PLANT	0.80++	0.60++	0.69++	0.69++	-0.26+	-0.07	0.00	0.00	0.76++	-0.14
100 SEED WEIGHT	0.20	-0.01	0.04	0.04	0.21	0.23	0.00	0.00	0.07	-0.03
QUALITY OF SEED	-0.24	0.16	0.16	0.16	-0.08	-0.17	0.00	0.00	0.18	0.34++

TABLE 70 EXPERIMENT 56 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
5	HILL	1.00	180.25	27.50	17.50	1.00	41.1	18.5
11	COBB	1.25	181.75	28.50	51.00	1.00	42.9	17.9
16	ESSEX	1.25	183.75	23.50	17.75	1.50	43.7	18.8
13	IMPROVED PELICAN	1.75	171.75	32.75	45.00	2.00	46.0	17.2
14	FORREST	1.00	174.50	22.50	15.75	1.50	41.7	18.3
15	COLUMBUS	1.25	179.75	22.00	62.50	1.00	46.7	18.6
12	DAVIS	1.00	193.25	18.75	52.50	1.25	42.5	18.7
8	BOSSIER	1.00	178.75	19.25	19.50	1.00	44.4	19.1
4	RANSON	1.25	188.00	15.75	67.00	1.50	44.0	20.5
6	PICKETT 71	1.00	176.25	16.75	18.25	1.25	43.6	18.4
9	WILLIAMS	2.25	190.75	15.50	19.75	1.00	45.1	17.5
10	CLARK 63	1.25	185.00	14.50	53.25	1.50	45.6	18.0
1	CALLAND	2.00	188.75	12.75	21.25	1.75	45.7	18.1
7	KWANYIKO	2.25	180.00	13.50	20.25	1.75	46.0	15.8
3	BRAGG	1.25	192.25	13.00	20.25	2.00	44.9	16.7
2	WOODWORTH	1.00	186.00	11.25	57.75	1.00	45.2	17.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.36	183.17	19.23	34.95	1.38		
COEFFICIENT OF VARIATION		0.18	3.44	1.73	19.76	0.22		
5% 1ST VARIETY MEANS (*****=NS)		26.47%	3.75%	17.99%	113.04%	31.61%		
		0.51	9.79	4.93	*****	0.62		
C O R R E L A T I O N S								
			(+ - PROB=-.05		+ - PROB=-.01)			
YIELD	KG/HA	-0.32+	-0.26+	0.80++	0.20	-0.24		
DAYS TO FLOWER		-0.21	-0.14	0.60++	-0.01	0.16		
DAYS TO MATURITY		-0.10	-0.32++	0.69++	0.04	0.16		
NODULE NUMBER 1		-0.04	0.19	-0.26+	0.21	-0.08		
NODULE NUMBER 2		-0.15	0.18	-0.07	0.23	-0.17		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT	HEIGHT	0.07	-0.34++	0.76++	0.07	0.18		
	LODGING	0.15	-0.06	-0.14	-0.03	0.34++		
	SHATTER	1.00	0.05	-0.11	-0.22	0.25		
PLANTS	HARVEST	0.05	1.00	-0.38++	-0.14	0.12		
PODS PER	PLANT	-0.11	-0.38++	1.00	0.04	-0.03		
100 SEED	WEIGHT	-0.22	-0.14	0.04	1.00	-0.18		
QUALITY	OF SEED	0.25	0.12	-0.03	-0.18	1.00		

TABLE 71 EXPERIMENT 52 YEAR 1976

REGION - AFRICA COUNTRY - ETHIOPIA
 SITE - LEKU ELEVATION - 1820 M
 LATITUDE - 6 DEG. 45 MIN. N LONGITUDE - 38 DEG. 20 MIN. E
 COOPERATORS - D. MITIKU, T. LEGATO
 DATE PLANTED - JUNE 30, 1976 DATE HARVESTED - DECEMBER, 1976
 SOIL TYPE - SANDY SILT
 FERTILIZER USED (KG/HA) - N 27.0, P 69.0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	BOSSIER	3121.46	72.75	152.00	0.00	0.00	0.00	0.00	45.75	1.00
16	ESSEX	2725.54	70.50	149.75	0.00	0.00	0.00	0.00	41.50	0.00
5	HILL	2546.34	76.00	152.00	0.00	0.00	0.00	0.00	46.50	0.50
14	FORREST	2450.49	73.75	153.25	0.00	0.00	0.00	0.00	44.50	1.00
9	WILLIAMS	2437.99	50.00	132.75	0.00	0.00	0.00	0.00	40.25	0.75
12	DAVIS	2433.82	96.00	163.25	0.00	0.00	0.00	0.00	56.50	1.00
6	PICKETT 71	2383.81	75.75	152.75	0.00	0.00	0.00	0.00	37.00	1.00
4	RANSON	2267.12	57.50	154.25	0.00	0.00	0.00	0.00	34.25	0.00
15	COLUMBUS	2162.93	49.00	157.75	0.00	0.00	0.00	0.00	55.25	0.50
11	COBB	1975.39	91.00	162.25	0.00	0.00	0.00	0.00	52.50	0.50
1	CALLAND	1821.20	50.50	153.50	0.00	0.00	0.00	0.00	39.25	0.25
2	WOODWORTH	1775.35	50.25	150.50	0.00	0.00	0.00	0.00	38.75	0.25
7	CUTLER 71	1562.81	57.25	150.00	0.00	0.00	0.00	0.00	42.50	0.50
13	IMPROVED PELICAN	1391.94	111.50	172.25	0.00	0.00	0.00	0.00	111.50	3.00
10	CLARK 63	1350.27	49.25	143.00	0.00	0.00	0.00	0.00	43.00	0.50
3	BRAGG	1241.91	72.50	149.50	0.00	0.00	0.00	0.00	39.25	0.25
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		2103.02	68.97	153.05	0.00	0.00	0.00	0.00	48.02	0.69
COEFFICIENT OF VARIATION		224.56	2.39	3.27	0.00	0.00	0.00	0.00	2.06	0.23
5% LSD VARIETY MEANS (*****=NS)		21.36%	6.93%	4.27%	0.00%	0.00%	0.00%	0.00%	8.56%	66.39%
		639.63	6.81	9.32	0.00	0.00	0.00	0.00	5.86	0.65
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.02	-0.05	0.00	0.00	0.00	0.00	-0.14	-0.01
DAYS TO FLOWER		0.02	1.00	0.61++	0.00	0.00	0.00	0.00	0.65++	0.59++
DAYS TO MATURITY		-0.05	0.61++	1.00	0.00	0.00	0.00	0.00	0.60++	0.32+
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		-0.14	0.65++	0.60++	0.00	0.00	0.00	0.00	1.00	0.77++
LODGING		-0.01	0.59++	0.32+	0.00	0.00	0.00	0.00	0.77++	1.00
SHATTER		-0.30+	-0.20	-0.11	0.00	0.00	0.00	0.00	-0.14	-0.19
PLANTS HARVEST		0.06	0.00	0.02	0.00	0.00	0.00	0.00	-0.03	-0.17
PODS PER PLANT		0.08	0.73++	0.54++	0.00	0.00	0.00	0.00	0.85++	0.75++
100 SEED WEIGHT		0.11	-0.30+	-0.30+	0.00	0.00	0.00	0.00	-0.41++	-0.35++
QUALITY OF SEED		-0.21	0.13	0.32+	0.00	0.00	0.00	0.00	0.14	0.05

TABLE 71 EXPERIMENT 52 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BOSSIER	1.00	183.75	34.45	18.58	1.75	44.3	19.4
16	ESSEX	1.75	213.75	30.40	17.05	1.00	42.1	23.2
5	HILL	1.50	250.25	30.58	14.45	1.75	42.8	18.5
14	FORREST	1.25	219.00	27.73	15.83	1.75	39.5	20.6
9	WILLIAMS	2.00	192.00	20.88	17.35	1.75	44.5	19.0
12	DAVIS	1.75	216.25	35.23	15.50	1.75	42.8	20.4
6	PICKETT 71	2.00	202.75	28.48	16.25	1.50	40.6	21.6
4	RANSOM	2.00	192.00	25.58	17.13	1.50	42.0	21.6
15	COLUMBUS	1.75	195.50	32.08	15.53	1.50	42.9	19.9
11	COBB	1.75	194.25	38.83	13.85	2.50	40.5	21.2
1	CALLAND	2.50	212.00	20.20	15.08	2.50	43.8	18.4
2	WOODWORTH	2.00	222.00	16.78	15.88	1.25	43.9	18.6
7	CUTLER 71	2.25	211.25	20.28	17.83	2.00	43.9	18.8
13	IMPROVED PELICAN	1.75	197.25	69.02	12.43	2.00	46.2	18.5
10	CLARK 63	1.75	198.75	18.73	15.93	1.75	43.8	19.1
3	BRAGG	2.00	197.25	15.63	21.70	2.25	43.8	18.0
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.81	206.13	29.05	16.27	1.78		
COEFFICIENT OF VARIATION		0.20	12.33	2.70	0.91	0.30		
5% LSD VARIETY MEANS (*****=NS)		21.95%	11.97%	18.56%	11.23%	33.28%		
		0.57	*****	7.68	2.60	*****		
C O R R E L A T I O N S (+ - PROB=-.05 ++ - PROB=-.01)								
YIELD	KG/HA	-0.30+	0.06	0.08	0.11	-0.21		
DAYS TO FLOWER		-0.20	0.00	0.73++	-0.30+	0.13		
DAYS TO MATURITY		-0.11	0.02	0.54++	-0.30+	0.32+		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT	HEIGHT	-0.14	0.00	0.00	0.00	0.00		
LODGING		-0.19	-0.03	0.85++	-0.41++	0.14		
SHATTER		1.00	-0.17	0.75++	-0.35++	0.05		
HARVEST		-0.16	1.00	-0.21	-0.24	0.07		
PLANTS	PER	-0.24	-0.21	1.00	-0.10	0.08		
PODS PER		0.00	-0.21	1.00	-0.47++	-0.00		
100 SEED	WEIGHT	0.07	-0.10	-0.47++	1.00	0.01		
QUALITY	OF SEED	0.07	0.08	-0.00	0.01	1.00		

TABLE 72 EXPERIMENT 326 YEAR 1976

REGION - AFRICA COUNTRY - GABON
 SITE - NTOUM ELEVATION - 18 M
 LATITUDE - 0 DEG. 20 MIN. N LONGITUDE - 9 DEG. 45 MIN. E
 COOPERATORS - J. VAN AMERONGEN, G. VAN DE PLAS
 DATE PLANTED - SEPTEMBER 30, 1976 DATE HARVESTED - JANUARY, 1977
 SOIL TYPE - SAND 64.5%, SILT 21.5%, CLAY 10.5%, PH 6.3
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 1177 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	JUPITER	2158.76	34.25	102.00	83.25	244.00	0.61	2.50	87.25	3.00
6	DAVIS	1967.06	30.50	95.00	83.00	166.00	0.44	1.93	45.75	1.75
7	IMPROVED PELICAN	1683.67	36.75	97.00	71.00	162.25	0.35	1.95	72.00	2.75
8	FORREST	1662.83	30.75	90.00	100.50	205.50	0.60	2.58	44.75	1.00
3	WILLIAMS	1475.29	31.75	94.00	122.25	278.00	0.96	3.78	50.75	1.75
4	CLARK 63	1425.28	28.25	92.00	112.00	268.00	0.84	3.25	55.75	1.75
2	BOSSIER	1387.78	27.25	94.00	114.00	223.25	0.79	2.82	45.25	1.00
5	COBB	1358.60	29.50	107.00	81.75	214.50	0.50	2.85	48.00	1.25
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1639.91	31.13	96.38	95.97	220.19	0.64	2.71	56.19	1.78
COEFFICIENT OF VARIATION		209.09	0.24	0.00	18.59	25.35	0.11	0.41	2.06	0.22
5% LSD VARIETY MEANS (*****=NS)		25.50%	1.53%	0.00%	38.75%	23.03%	33.44%	30.02%	7.32%	24.21%
		*****	0.70	0.00	*****	74.57	0.31	*****	6.05	0.63
C O R R E L A T I O N S										
		(+ - PROB=.05		+ - PROB=.01)						
YIELD	KG/HA	1.00	0.32	0.06	0.01	-0.17	0.04	-0.11	0.39+	0.26
DAYS TO FLOWER		0.32	1.00	0.22	-0.30	-0.17	-0.34	-0.27	0.70++	0.70++
DAYS TO MATURITY		0.06	0.22	1.00	-0.28	-0.06	-0.28	-0.09	0.36+	0.26
NODULE NUMBER 1		0.01	-0.30	-0.28	1.00	0.28	0.66++	0.21	-0.10	-0.16
NODULE NUMBER 2		-0.17	-0.17	-0.06	0.28	1.00	0.50++	0.69++	0.02	-0.14
NODULE WEIGHT 1		0.04	-0.34	-0.28	0.66++	0.50++	1.00	0.62++	-0.07	-0.19
NODULE WEIGHT 2		-0.11	-0.27	-0.09	0.21	0.69++	0.62++	1.00	-0.17	-0.35+
PLANT HEIGHT		0.39+	0.70++	0.36+	-0.10	0.02	-0.07	-0.07	1.00	0.82++
LODGING		0.26	0.70++	0.26	-0.16	-0.14	-0.19	-0.35+	0.82++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.19	-0.12	-0.17	0.29	0.34	0.17	0.14	0.06	0.08
PLANTS		0.47++	0.71++	0.39+	-0.18	-0.19	-0.13	-0.11	0.70++	0.60++
PODS PER 100 SEED		0.18	0.01	0.08	0.14	0.49++	0.38+	0.35+	0.06	0.09
QUALITY OF SEED		-0.04	0.15	0.30	-0.32	-0.34	-0.33	-0.25	0.17	0.31

TABLE 72 EXPERIMENT 326 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	JUPITER	0.00	169.00	45.75	23.25	3.00	46.1	28.9
6	DAVIS	0.00	182.25	25.75	23.25	3.75	44.4	27.4
7	IMPROVED PELICAN	0.00	141.25	42.00	19.25	3.50	47.5	26.9
8	FORREST	0.00	144.25	26.75	19.50	2.50	43.9	26.6
3	WILLIAMS	0.00	192.50	23.75	25.00	2.25	46.0	28.5
4	CLARK 63	0.00	192.75	19.75	21.50	3.00	47.3	25.2
2	BOSSIER	0.00	143.75	24.75	20.75	2.50	47.0	25.6
5	COBB	0.00	148.25	27.75	21.00	3.50	40.6	30.8
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	164.25	29.53	21.69	3.00		
COEFFICIENT OF VARIATION		0.00%	10.43	3.24	0.61	0.29		
5% ISL VARIETY MEANS (*****=NS)		0.00	12.70%	21.94%	5.64%	19.59%		
			30.66	9.53	1.80	0.86		
C O R R E L A T I O N S (+ - PROB=.05 ** - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER		0.00	0.19	0.47++	0.18	-0.04		
DAYS TO MATURITY		0.00	-0.12	0.71++	0.01	0.15		
NODULE NUMBER 1		0.00	-0.17	0.39+	0.08	0.30		
NODULE NUMBER 2		0.00	0.29	-0.18	0.14	-0.32		
NODULE WEIGHT 1		0.00	0.34	-0.19	0.49++	-0.34		
NODULE WEIGHT 2		0.00	0.17	-0.13	0.38+	-0.33		
PLANT HEIGHT		0.00	0.14	-0.11	0.35+	-0.25		
LODGING		0.00	0.06	0.70++	0.06	0.17		
SHATTER		1.00	0.08	0.60++	0.09	0.31		
HARVEST		0.00	1.00	-0.35+	0.58++	-0.14		
PLANTS PER PLANT		0.00	-0.35+	1.00	-0.07	0.34		
100 SEED WEIGHT		0.00	0.58++	-0.07	1.00	-0.17		
QUALITY OF SEED		0.00	-0.14	0.34	-0.17	1.00		

TABLE 73 EXPERIMENT 325 YEAR 1976

REGION - AFRICA COUNTRY - GABON
 SITE - NTOUM ELEVATION - 18 M
 LATITUDE - 0 DEG. 20 MIN. N LONGITUDE - 9 DEG. 45 MIN. E
 COOPERATORS - J. VAN AHERONGEN, G. VAN DE PLAS
 DATE PLANTED - MARCH 10, 1977 DATE HARVESTED - JUNE, 1977
 SOIL TYPE - SAND 22.0%, SILT 63.5%, CLAY 14.5%, PH 6.4
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 490 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	JUPITER	1900.38	29.25	98.00	0.00	132.25	0.00	1.38	68.50	0.00
8	TGM 256-1-B	1779.52	33.50	90.00	0.00	112.50	0.00	1.28	68.75	0.00
5	TGM 294-4-2371	1758.68	37.25	97.75	0.00	160.75	0.00	1.83	66.50	0.00
3	TGM 255-2-4341	1742.01	29.50	88.75	0.00	234.50	0.00	1.93	58.50	0.00
7	TGX 13-3-2644	1704.51	35.50	97.75	0.00	184.75	0.00	2.25	71.50	0.00
14	DAVIS	1629.49	28.50	98.25	0.00	122.00	0.00	1.45	43.75	0.00
2	TGM 210-1-2363	1612.82	31.25	89.25	0.00	107.25	0.00	1.15	57.25	0.00
2	TGM 220-1-2205	1571.15	36.75	101.00	0.00	191.00	0.00	2.05	51.00	0.00
1	IMPROVED PELICAN	1512.80	31.50	98.50	0.00	138.50	0.00	1.08	55.00	0.00
15	FORREST	1446.12	29.00	86.00	0.00	95.50	0.00	1.20	43.25	0.00
16	WILLIAMS	1441.95	26.50	87.75	0.00	176.75	0.00	1.65	47.00	0.00
11	COBB	1433.62	26.50	98.00	0.00	99.75	0.00	1.20	45.00	0.00
6	TGX 66-5100	1425.28	30.75	86.25	0.00	36.25	0.00	0.75	70.00	0.00
12	CLARK 63	1312.76	26.75	86.25	0.00	238.00	0.00	2.08	48.75	0.00
4	TGM 249-4-B	1204.41	31.00	101.25	0.00	178.50	0.00	1.35	55.50	0.00
10	BOSSIER	1058.54	26.00	90.25	0.00	198.75	0.00	2.48	42.50	0.00
GRAND MEAN										
1533.38										
STANDARD ERROR OF A VARIETY MEAN										
169.35										
COEFFICIENT OF VARIATION										
22.09%										
5% LSD VARIETY MEANS (*****=NS)										

C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.18	0.23	0.00	0.14	0.00	0.03	0.50++	0.00
DAYS TO FLOWER	0.18	1.00	0.34++	0.00	0.00	-0.10	0.00	0.00	0.42++	0.00
DAYS TO MATURITY	0.23	0.34++	1.00	0.00	0.00	0.07	0.00	0.05	0.15	0.00
NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.14	-0.10	0.07	0.00	0.00	1.00	0.00	0.73++	-0.04	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.03	0.00	0.05	0.00	0.00	0.73++	0.00	1.00	-0.03	0.00
PLANT HEIGHT	0.50++	0.42++	0.15	0.00	0.00	-0.04	0.00	-0.03	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.30+	0.26+	-0.32++	0.00	0.00	-0.14	0.00	-0.16	0.26+	0.00
PLANTS PER 100 SEED	0.13	-0.11	0.18	0.00	0.00	0.13	0.00	0.00	0.13	0.00
WEIGHT	0.04	-0.39++	0.10	0.00	0.00	0.02	0.00	0.15	-0.14	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 73 EXPERIMENT 325 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	JUPITER	0.00	165.00	20.33	17.45	0.00	42.0	24.7
8	TGM 256-1-B	0.00	242.75	19.58	11.78	0.00	43.9	20.1
5	TGM 294-4-2371	0.00	206.00	16.53	16.20	0.00	42.6	20.5
3	TGM 255-2-4341	0.00	182.25	27.53	12.90	0.00	42.6	24.0
7	TGX 13-3-2644	0.00	176.25	14.38	16.23	0.00	40.6	24.0
14	DAVIS	0.00	177.25	18.60	17.43	0.00	43.5	22.9
2	TGM 210-1-2363	0.00	203.75	18.10	15.33	0.00	42.4	23.2
1	TGM 220-1-2205	0.00	164.00	21.25	13.05	0.00	42.4	22.2
15	IMPROVED PELICAN	0.00	152.50	27.90	12.48	0.00	41.5	24.4
16	PORREST	0.00	166.75	23.88	14.33	0.00	41.0	22.2
11	WILLIAMS	0.00	177.75	11.28	18.18	0.00	43.3	23.5
13	COBB	0.00	147.00	19.70	17.53	0.00	39.6	25.2
6	TGX 66-5100	0.00	193.25	20.28	14.40	0.00	41.9	21.1
12	CLARK 63	0.00	192.50	13.35	16.55	0.00	40.6	26.5
4	TGM 249-4-B	0.00	60.00	27.35	14.40	0.00	41.8	24.4
10	BOSSIER	0.00	114.75	18.50	15.95	0.00	43.5	23.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	170.11	19.91	15.26	0.00		
COEFFICIENT OF VARIATION		0.00%	19.46	3.20	0.67	0.00		
5% LSD VARIETY MEANS (*****=NS)		0.00	22.88%	32.11%	8.75%	0.00%		
			55.44	9.10	1.90	0.00		
C O R R E L A T I O N S								
		(+ - PROB=-.05		++ - PROB=-.01)				
YIELD	KG/HA	0.00	0.30+	0.13	0.04	0.00		
DAYS TO	FLOWER	0.00	0.26+	-0.11	-0.39++	0.00		
DAYS TO	MATURITY	0.00	-0.32++	0.18	0.10	0.00		
NODULE	NUMBER 1	0.00	0.00	0.00	0.00	0.00		
NODULE	NUMBER 2	0.00	-0.14	0.13	0.02	0.00		
NODULE	WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
NODULE	WEIGHT 2	0.00	-0.16	0.00	0.15	0.00		
PLANT	HEIGHT	0.00	0.26+	0.13	-0.14	0.00		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS	HARVEST	0.00	1.00	-0.46++	-0.15	0.00		
PODS PER	PLANT	0.00	-0.46++	1.00	-0.22	0.00		
100 SEED	WEIGHT	0.00	-0.15	-0.22	1.00	0.00		
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00		

TABLE 74 EXPERIMENT 0 YEAR 1976

REGION - AFRICA COUNTRY - GHANA
 SITE - KUMASI ELEVATION - 270 M
 LATITUDE - 6 DEG. 41 MIN. N LONGITUDE - 1 DEG. 42 MIN. W
 COOPERATOR - H. MERCER-QUARSHIE
 DATE PLANTED - APRIL 29, 1976
 SOIL TYPE - SILT, PH: 6.0
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 614 MM
 LOCAL VARIETY - CES 407
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	DAVIS	2743.88	30.00	97.00	67.50	0.00	0.35	0.00	24.25	1.00
11	WILLIAMS	2695.96	26.00	85.75	65.00	0.00	0.34	0.00	54.00	1.25
1	TGM 220-1-2205	2676.79	43.00	102.50	87.50	0.00	0.41	0.00	49.25	4.75
8	TGM 256-1-B	2473.83	39.00	99.00	52.50	0.00	0.25	0.00	70.00	3.75
2	TGM 210-1-2363	2421.32	36.00	95.00	17.25	0.00	0.08	0.00	62.50	3.00
3	TGM 255-2-4341	2367.97	32.00	103.25	75.00	0.00	0.25	0.00	88.25	3.25
6	TGX 66-5100	2352.14	40.00	97.00	19.00	0.00	0.14	0.00	90.60	3.75
12	CLARK 63	2326.30	26.00	96.75	82.50	0.00	0.38	0.00	56.25	1.75
15	IMPROVED PELICAN	2297.54	37.00	99.00	17.25	0.00	0.04	0.00	104.75	2.75
7	TGX 13-3-2644	2260.45	35.00	104.00	35.00	0.00	0.15	0.00	86.00	3.75
5	TGM 294-4-2371	2251.70	43.75	96.75	82.50	0.00	0.35	0.00	66.75	1.75
4	TGM 249-4-B	2219.19	35.00	101.50	19.75	0.00	0.04	0.00	89.00	4.00
10	BOSSIER	2080.00	26.00	98.00	44.25	0.00	0.18	0.00	25.75	1.00
13	COBB	2068.75	30.00	103.00	30.00	0.00	0.19	0.00	33.25	1.00
16	CES 407	1904.55	42.00	113.75	63.25	0.00	0.35	0.00	103.75	3.25
9	JUPIER	1757.85	47.00	114.25	45.00	0.00	0.22	0.00	55.50	2.75
GRAND MEAN										
2306.14										
STANDARD ERROR OF A VARIETY MEAN										
173.37										
COEFFICIENT OF VARIATION										
15.04%										
5% LSD VARIETY MEANS (*****=NS)										
493.83										
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	-0.20	-0.43++	0.10	0.00	0.13	0.00	-0.12	0.17
DAYS TO FLOWER	1.00	-0.20	1.00	0.55++	-0.01	0.00	-0.00	0.00	0.40++	0.56++
DAYS TO MATURITY	-0.43++	-0.43++	0.55++	1.00	-0.02	0.00	-0.00	0.00	0.26+	0.37++
NODULE NUMBER 1	0.10	0.10	-0.01	-0.02	1.00	0.00	0.83++	0.00	-0.18	-0.13
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.13	0.13	-0.00	-0.00	0.83++	0.00	1.00	0.00	-0.25+	-0.14
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	-0.12	0.40++	0.26+	-0.18	0.00	-0.25+	0.00	1.00	0.60++
LODGING	0.17	0.56++	0.37++	0.37++	-0.13	0.00	-0.14	0.00	0.60++	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.32++	-0.27+	-0.55++	-0.55++	-0.05	0.00	-0.09	0.00	-0.06	0.05
PLANTS	PLANT	-0.11	0.56++	0.47++	0.02	0.00	-0.04	0.00	0.62++	0.50++
PODS PER 100 SEED	WEIGHT	-0.01	-0.43++	-0.05	0.06	0.00	0.17	0.00	-0.50++	-0.55++
QUALITY	OF SEED	-0.20	-0.20	0.09	0.07	0.00	0.10	0.00	-0.42++	-0.17

TABLE 74 EXPERIMENT 0 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	DAVIS	1.00	157.50	44.00	21.25	1.50	43.2	21.3
11	WILLIAMS	1.00	140.00	45.00	21.75	1.50	42.6	23.3
1	TGM 220-1-2205	1.00	124.50	83.00	15.25	2.00	45.0	21.9
8	TGM 256-1-B	1.00	171.25	63.75	15.50	1.50	46.4	18.8
2	TGM 210-1-2363	1.00	171.50	66.75	17.00	2.25	43.8	20.2
3	TGM 255-2-4341	1.00	170.00	77.00	14.25	1.25	44.3	20.8
6	TGX 66-5100	1.00	168.50	58.25	16.50	1.50	45.1	19.6
12	CLARK 63	1.00	163.25	37.75	20.50	2.50	43.3	22.9
15	IMPROVED PELICAN	1.00	119.00	90.50	15.00	1.00	43.4	21.6
7	TGX 13-3-2644	1.00	170.25	55.00	18.75	1.25	43.3	21.7
5	TGM 294-4-2371	1.00	176.50	57.50	17.00	1.00	47.4	17.8
4	TGM 249-4-B	1.00	146.75	72.75	17.25	1.25	42.9	22.9
10	BOSSIER	1.00	135.00	36.25	20.50	2.00	44.4	22.6
13	COBB	1.00	119.50	43.50	23.00	2.50	41.2	23.8
16	CES 407	1.00	60.00	101.50	19.50	1.50	44.8	19.6
9	JUPITER	1.00	76.50	72.50	19.75	2.00	44.1	21.5

GRAND MEAN
STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% LSL VARIETY MEANS (*****=NS)

141.88 62.81 18.30 1.66
10.78 7.40 0.84 0.24
15.20% 23.56% 9.22% 29.42%
30.70 21.08 2.40 0.69

C O R R E L A T I O N S

(+ - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	0.00	0.32++	-0.11	-0.01	-0.20
DAYS TO FLOWER		0.00	-0.27+	0.56++	-0.43++	-0.20
DAYS TO MATURITY		0.00	-0.55++	0.47++	-0.05	0.09
NODULE NUMBER 1		0.00	-0.05	0.02	0.06	0.07
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	-0.09	-0.04	0.17	0.10
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	-0.06	0.62++	-0.50++	-0.42++
LOGGING		0.00	0.05	0.50++	-0.55++	-0.17
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.35++	-0.27+	-0.18
PODS PER	PLANT	0.00	-0.35++	1.00	-0.43++	-0.14
100 SEED	WEIGHT	0.00	-0.27+	-0.43++	1.00	0.33++
QUALITY	OF SEED	0.00	-0.18	-0.14	0.33++	1.00

TABLE 75 EXPERIMENT 234

YEAR 1976

REGION - AFRICA
 SITE - LEGON FARM
 LATITUDE - 5 DEG. 39 MIN. N
 COOPERATOR - R.B. DADSON
 DATE PLANTED - MAY 26, 1976
 SOIL PH 6.2
 AMOUNT OF MOISTURE - 438 MM
 NUMBER OF IRRIGATIONS - 9

COUNTRY - GHANA
 ELEVATION - 60 M
 LONGITUDE - 0 DEG. 11 MIN. W

DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	IMPROVED PELICAN	1772.02	21.25	80.00	80.75	112.75	0.34	0.61	45.43	2.25
7	TGX 13-3-2644	1703.26	53.75	111.00	66.00	114.75	0.34	0.80	36.60	1.00
9	JUPITER	1603.24	48.25	98.00	171.50	157.50	0.64	0.88	49.93	2.50
3	TGM 255-2-4341	1331.94	42.25	101.00	67.25	92.50	0.32	0.61	32.13	2.00
4	TGM 249-4-B	1381.53	40.25	98.00	104.00	109.50	0.53	0.84	32.25	2.75
11	WILLIAMS	1347.35	21.00	76.00	118.75	149.00	0.37	0.90	34.08	2.50
16	FORREST	1339.85	12.75	76.00	92.25	106.50	0.31	0.76	29.48	1.75
12	CLARK 63	1236.08	15.50	76.00	133.00	154.00	0.48	1.18	34.68	1.75
13	COBB	1228.16	15.50	62.75	110.00	107.50	0.41	0.71	27.20	1.50
1	TGM 220-1-2205	1182.74	50.50	111.00	97.00	107.25	0.39	0.67	39.48	1.75
14	DAVIS	1171.90	13.50	76.00	101.25	132.25	0.30	0.76	31.28	2.25
5	TGM 294-4-2371	1168.98	31.00	111.00	72.75	104.00	0.31	0.64	39.68	1.75
10	BOSSIER	1156.48	14.75	76.00	121.75	129.75	0.48	0.99	22.55	1.25
8	TGM 256-1-B	1145.23	33.75	98.00	68.75	123.25	0.33	0.59	46.15	2.25
6	TGX 66-5100	1143.56	31.75	106.00	96.25	107.50	0.43	0.69	45.23	1.50
2	TGM 210-1-2363	1094.80	45.00	96.00	63.50	98.25	0.41	0.67	39.93	2.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.16	-0.01	0.12	0.17	0.03	0.08	0.23	0.09
DAYS TO FLOWER	1.00	0.43++	0.02	0.03	0.02	0.03	0.20	-0.07	0.33++	-0.07
DAYS TO MATURITY	0.43++	1.00	0.24	-0.16	-0.24	-0.16	0.04	-0.23	0.46++	-0.01
NODULE NUMBER 1	0.12	-0.24	1.00	0.58++	1.00	0.58++	0.64++	0.52++	0.01	0.01
NODULE NUMBER 2	0.17	0.03	-0.16	0.58++	0.58++	1.00	0.47++	0.71++	0.16	-0.05
NODULE WEIGHT 1	0.03	0.20	0.04	0.64++	0.64++	0.47++	1.00	0.52++	0.06	0.02
NODULE WEIGHT 2	0.08	-0.07	-0.23	0.52++	0.52++	0.71++	0.52++	1.00	-0.15	-0.16
PLANT HEIGHT	0.23	0.33++	0.46++	0.01	0.01	0.16	0.06	-0.15	1.00	0.26+
LODGING	0.09	-0.07	-0.01	-0.05	0.01	-0.05	0.02	-0.16	0.26+	1.00
SHATTER	-0.13	-0.13	-0.08	-0.23	-0.23	-0.12	-0.02	-0.02	-0.04	0.15
PLANTS HARVESTED	-0.10	-0.09	-0.16	-0.21	-0.21	-0.06	-0.26+	-0.16	-0.17	-0.17
PODS PER PLANT	0.44++	0.16	0.03	0.19	0.19	0.20	0.22	0.32	0.26+	-0.00
100 SEED WEIGHT	0.04	-0.29+	-0.70++	0.48++	0.48++	0.40++	0.22	0.32+	-0.33++	-0.06
QUALITY OF SEED	0.10	-0.09	-0.12	0.20	0.20	0.12	0.18	0.13	-0.07	-0.01

TABLE 75 EXPERIMENT 234 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	IMPROVED PELICAN	1.00	143.50	42.17	14.25	1.75
7	TGX 13-3-2644	1.00	161.25	27.80	13.23	1.50
9	JUPITER	1.00	132.25	38.20	16.98	2.25
3	TGM 255-2-4341	1.25	151.25	27.25	12.10	1.75
4	TGM 249-4-B	1.00	140.00	25.80	13.45	1.25
11	WILLIAMS	1.00	181.50	17.63	20.10	1.00
16	FORREST	1.00	170.75	29.65	15.48	2.25
12	CLARK 63	1.00	154.75	28.45	17.25	2.00
13	COBB	1.25	149.00	26.40	19.13	1.25
1	TGM 220-1-2205	1.25	128.75	30.53	12.50	1.25
14	DAVIS	1.00	190.50	14.05	17.58	1.00
5	TGM 294-4-2371	1.00	164.00	22.70	11.00	1.00
10	BOSSIER	1.25	150.75	29.85	17.18	2.00
8	TGM 256-1-B	1.25	172.50	23.58	13.33	1.00
6	TGX 66-5100	1.25	153.00	16.18	13.78	1.00
2	TGM 210-1-2363	1.25	171.75	24.15	12.68	1.75
GRAND MEAN						
1.11						
STANDARD ERROR OF A VARIETY MEAN						
0.17						
COEFFICIENT OF VARIATION						
30.65%						
5% 1SD VARIETY MEANS (*****=NS)						

CORRELATIONS						
(+ - PROB=.05) ++ - PROB=.01)						
YIELD	KG/HA	-0.13	-0.10	0.44++	0.04	0.10
DAYS TO FLOWER		-0.13	-0.09	0.16	-0.29+	-0.09
DAYS TO MATURITY		-0.08	-0.16	0.03	-0.70++	-0.12
NODULE NUMBER 1		-0.23	-0.21	0.19	0.48++	0.20
NODULE NUMBER 2		-0.12	-0.06	0.20	0.40++	0.12
NODULE WEIGHT 1		-0.02	-0.26+	0.22	0.22	0.18
NODULE WEIGHT 2		-0.02	-0.16	0.12	0.32+	0.13
PLANT	HEIGHT	-0.04	-0.17	0.26+	-0.33++	-0.07
LODGING		0.15	-0.17	-0.00	-0.06	-0.01
SHATTER		1.00	-0.05	-0.19	-0.03	-0.18
PLANTS	HARVEST	-0.05	1.00	-0.41++	0.14	-0.17
PODS PER	PLANT	-0.19	-0.41++	1.00	-0.02	0.42++
100 SEED	WEIGHT	-0.03	0.14	-0.02	1.00	0.08
QUALITY	OF SEED	-0.18	-0.17	0.42++	0.08	1.00

TABLE 76 EXPERIMENT 996 YEAR 1976

REGION - AFRICA COUNTRY - IVORY COAST
SITE - ABIDJAN ELEVATION - 0 M
LATITUDE - 5 DEG. N LONGITUDE - 4 DEG. W
COOPERATOR - AYEMOU D. ASSA
DATE PLANTED - MAY 18, 1976 DATE HARVESTED - SEPTEMBER, 1976
SOIL TYPE - SAND, PH 5.3
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
AMOUNT OF MOISTURE - 1864 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	TGM 256-1-B	1192.08	40.25	95.75	0.00	0.00	0.00	0.00	40.50	1.00
6	TGX 66-5100	687.08	39.25	88.50	0.00	0.00	0.00	0.00	45.25	1.00
7	TGX 13-3-2644	376.67	37.00	105.50	0.00	0.00	0.00	0.00	51.25	1.00
5	TGM 294-4-2371	262.08	54.00	100.25	0.00	0.00	0.00	0.00	31.00	1.00
4	TGM 249-4-B	221.25	35.50	85.75	0.00	0.00	0.00	0.00	28.75	1.00
2	TGM 210-1-2363	210.42	39.50	89.75	0.00	0.00	0.00	0.00	23.25	1.00
1	TGM 220-1-2205	202.50	47.00	100.75	0.00	0.00	0.00	0.00	23.50	1.00
3	TGM 255-2-4341	107.92	35.75	87.00	0.00	0.00	0.00	0.00	21.50	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		407.50	41.03	94.16	0.00	0.00	0.00	0.00	33.13	1.00
COEFFICIENT OF VARIATION		117.03	0.87	0.86	0.00%	0.00%	0.00%	0.00%	2.18	0.00%
5% LSD VARIETY MEANS (*****=NS)		57.44%	4.24%	1.83%	0.00	0.00	0.00	0.00	13.14%	0.00%
		344.21	2.56	2.53	0.00	0.00	0.00	0.00	6.40	0.00
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	-0.13	0.04	0.00	0.00	0.00	0.00	0.60++	0.00
DAYS TO FLOWER		-0.13	1.00	0.50++	0.00	0.00	0.00	0.00	-0.19	0.00
DAYS TO MATURITY		0.04	0.50++	1.00	0.00	0.00	0.00	0.00	0.32	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
HEIGHT		0.60++	-0.19	0.32	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.62++	-0.31	-0.15	0.00	0.00	0.00	0.00	0.65++	0.00
PLANTS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 76 EXPERIMENT 996 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	TGM 256-1-B	1.00	171.00	0.00	0.00	4.00
6	TGX 66-5100	1.00	213.00	0.00	0.00	4.00
7	TGX 13-3-2644	1.00	162.50	0.00	0.00	4.00
5	TGM 294-4-2371	1.00	132.75	0.00	0.00	4.00
4	TGM 249-4-B	1.00	131.50	0.00	0.00	4.00
2	TGM 210-1-2363	1.00	143.25	0.00	0.00	4.00
1	TGM 220-1-2205	1.00	94.00	0.00	0.00	4.00
3	TGM 255-2-4341	1.00	120.75	0.00	0.00	4.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	146.09	0.00	0.00	4.00
COEFFICIENT OF VARIATION		0.00%	18.62	0.00	0.00	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	25.49%	0.00%	0.00%	0.00%
		0.00	54.75	0.00	0.00	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD		0.00	0.62++	0.00	0.00	0.00
DAYS TO FLOWER		0.00	-0.31	0.00	0.00	0.00
DAYS TO MATURITY		0.00	-0.15	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT		0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.65++	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 77 EXPERIMENT 252

YEAR 1976

REGION - AFRICA
 SITE - DEKOKAHA
 LATITUDE - 9 DEG. 5 MIN. N
 COOPERATOR - AYEMOU D. ASSA
 DATE PLANTED - JULY 23, 1976
 SOIL TYPE - SANDY LOAM, PH 5.5
 FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
 AMOUNT OF MOISTURE - 539 MM

COUNTRY - IVORY COAST
 ELEVATION - 350 M
 LONGITUDE - 5 DEG. 6 MIN. W
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	JUPITER	2228.75	39.00	115.00	0.00	0.00	0.00	0.00	45.63	1.00
6	DAVIS	2171.25	37.00	103.00	0.00	0.00	0.00	0.00	24.28	1.00
7	IMPROVED PELICAN	1746.25	39.00	95.00	0.00	0.00	0.00	0.00	34.10	1.00
8	FORREST	1686.25	35.00	97.00	0.00	0.00	0.00	0.00	26.70	1.00
5	COBB	1667.50	35.00	95.00	0.00	0.00	0.00	0.00	22.45	1.00
2	BOSSIER	1537.50	35.00	95.00	0.00	0.00	0.00	0.00	20.78	1.00
3	WILLIAMS	1483.75	37.00	89.00	0.00	0.00	0.00	0.00	23.45	1.00
4	CLARK 63	1387.50	36.00	89.00	0.00	0.00	0.00	0.00	21.68	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1738.59	36.63	97.25	0.00	0.00	0.00	0.00	27.38	1.00
COEFFICIENT OF VARIATION		171.57	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00
5% LSD VARIETY MEANS (*****=NS)		504.61	0.00	0.00	0.00	0.00	0.00	0.00	6.31%	0.00
CORRELATIONS										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.33	0.56++	0.00	0.00	0.00	0.00	0.42+	0.00
DAYS TO FLOWER		0.33	1.00	0.49++	0.00	0.00	0.00	0.00	0.78++	0.00
DAYS TO MATURITY		0.56++	0.49++	1.00	0.00	0.00	0.00	0.00	0.77++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.42+	0.78++	0.77++	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.10	-0.42+	-0.26	0.00	0.00	0.00	0.00	-0.54++	0.00
PODS PER PLANT		0.24	0.45++	0.64++	0.00	0.00	0.00	0.00	0.63++	0.00
100 SEED WEIGHT		-0.26	0.05	-0.19	0.00	0.00	0.00	0.00	-0.00	0.00
QUALITY OF SEED		0.16	-0.18	0.35+	0.00	0.00	0.00	0.00	-0.07	0.00

TABLE 77 EXPERIMENT 252 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1	JUPITER	1.00	184.50	17.50	18.80	3.00
6	DAVIS	1.00	346.25	10.00	12.98	3.00
7	IMPROVED PELICAN	1.00	215.75	13.00	14.68	2.00
8	FORREST	1.00	275.00	11.25	12.75	2.00
5	COBB	1.00	275.25	10.50	17.68	3.00
2	BOSSIER	1.00	245.50	9.75	17.78	3.00
3	WILLIAMS	1.00	261.75	7.00	20.25	2.00
4	CLARK 63	1.00	276.75	9.50	19.10	3.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	260.09	11.06	16.75	2.63
COEFFICIENT OF VARIATION		0.00	18.28	1.44	0.25	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	14.05%	26.01%	3.04%	0.00%
		0.00	53.75	4.23	0.75	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05	++ - PROB=.01)			
YIELD KG/HA		0.00	0.10	0.24	-0.26	0.16
DAYS TO FLOWER		0.00	-0.42+	0.45++	0.05	-0.18
DAYS TO MATURITY		0.00	-0.26	0.64++	-0.19	0.35+
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.54++	0.63++	-0.00	-0.07
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.47++	-0.35+	0.13
PODS PER PLANT		0.00	-0.47++	1.00	-0.06	0.13
100 SEED WEIGHT		0.00	-0.35+	-0.06	1.00	0.24
QUALITY OF SEED		0.00	0.13	0.13	0.24	1.00

TABLE 78 EXPERIMENT 256 YEAR 1976

REGION - AFRICA
 SITE - ODIENNE
 LATITUDE - 9 DEG. 6 MIN. N
 COOPERATOR - AYEMOU D. ASSA
 DATE PLANTED - JULY 23, 1976
 SOIL TYPE - SANDY LOAM, PH 5.6
 FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
 AMOUNT OF MOISTURE - 1252 MM

COUNTRY - IVORY COAST
 ELEVATION - 400 M
 LONGITUDE - 7 DEG. 7 MIN. W
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
5	COBB	2262.50	36.00	94.00	0.00	0.00	0.00	0.00	33.53	1.00
1	JUPITER	2201.25	40.00	115.00	0.00	0.00	0.00	0.00	72.25	1.00
2	BOSSIER	2188.75	36.00	94.00	0.00	0.00	0.00	0.00	33.20	1.00
6	DAVIS	2148.75	37.25	100.50	0.00	0.00	0.00	0.00	33.13	1.00
8	FORREST	2013.75	36.00	94.00	0.00	0.00	0.00	0.00	39.53	1.00
7	IMPROVED PELICAN	2013.75	38.00	93.00	0.00	0.00	0.00	0.00	57.23	1.00
4	CLARK 63	1793.75	37.00	89.00	0.00	0.00	0.00	0.00	40.68	1.00
3	WILLIAMS	1712.50	37.00	89.00	0.00	0.00	0.00	0.00	36.15	1.00
GRAND MEAN		2041.88	37.16	96.06	0.00	0.00	0.00	0.00	43.21	1.00
STANDARD ERROR OF A VARIETY MEAN		129.80	0.09	0.88	0.00	0.00	0.00	0.00	2.61	0.00
COEFFICIENT OF VARIATION		12.71%	0.48%	1.84%	0.00%	0.00%	0.00%	0.00%	12.08%	0.00%
5% LSD VARIETY MEANS (*****=NS)		*****	0.26	2.60	0.00	0.00	0.00	0.00	7.68	0.00
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.02	0.35+	0.00	0.00	0.00	0.00	0.16	0.00
DAYS TO FLOWER		0.02	1.00	0.72++	0.00	0.00	0.00	0.00	0.83++	0.00
DAYS TO MATURITY		0.35+	0.72++	1.00	0.00	0.00	0.00	0.00	0.64++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	0.16	0.83++	0.64++	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		-0.05	-0.40+	-0.21	0.00	0.00	0.00	0.00	-0.47++	0.00
PODS PER PLANT		0.49++	0.25	0.35	0.00	0.00	0.00	0.00	0.58++	0.00
100 SEED WEIGHT		-0.04	-0.31	-0.19	0.00	0.00	0.00	0.00	-0.43+	0.00
QUALITY OF SEED		0.18	0.84++	0.89++	0.00	0.00	0.00	0.00	0.77++	0.00

TABLE 78 EXPERIMENT 256 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
5	COBB	1.00	295.50	18.70	19.45	2.00
1	JUPITER	1.00	238.50	23.50	17.60	3.00
2	BOSSIER	1.00	289.50	21.78	19.85	2.00
6	DAVIS	1.00	347.50	13.35	17.48	2.00
8	FORREST	1.00	300.50	20.85	16.15	2.00
7	IMPROVED PELICAN	1.00	275.75	23.53	13.93	2.00
4	CLARK 63	1.00	260.50	13.43	18.48	2.00
3	WILLIAMS	1.00	300.25	15.00	21.40	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	288.50	18.77	18.04	2.13
COEFFICIENT OF VARIATION		0.00	17.77	1.28	0.16	0.00
5% LSD VARIETY MEANS (*****NS)		0.00	12.32%	13.66%	1.75%	0.00%
		0.00	52.25	3.77	0.46	0.00
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	-0.05	0.49++	-0.04	0.18
DAYS TO FLOWER		0.00	-0.40+	0.25	-0.31	0.84++
DAYS TO MATURITY		0.00	-0.21	0.35	-0.19	0.89++
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.47++	0.58++	-0.43+	0.77++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	-0.27	0.08	-0.45++
PLANTS PER PLANT		0.00	-0.27	1.00	-0.35	0.37+
100 SEED WEIGHT		0.00	0.08	-0.35	1.00	-0.08
QUALITY OF SEED		0.00	-0.45++	0.37+	-0.08	1.00

TABLE 79 EXPERIMENT 245 YEAR 1976

REGION - AFRICA
 SITE - SIRASSO
 LATITUDE - 9 DEG. 4 MIN. N
 COOPERATOR - AYEYOU D. ASSA
 DATE PLANTED - JULY 27, 1976
 SOIL TYPE - SAND 85%, SILT 6%, CLAY 9%, PH 5.5
 FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
 AMOUNT OF MOISTURE - 707 MM

COUNTRY - IVORY COAST
 ELEVATION - 350 M
 LONGITUDE - 6 DEG. 2 MIN. W

DATE HARVESTED - NOVEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE WEIGHT 1	PLANT HEIGHT	LODGING
6	DAVIS	2841.25	33.00	101.00	0.00	0.00	0.00	0.00	0.00	22.33	1.00
7	IMPROVED PELICAN	2590.00	38.00	91.00	0.00	0.00	0.00	0.00	0.00	68.75	1.00
5	COBB	2516.25	33.00	95.00	0.00	0.00	0.00	0.00	0.00	26.18	1.00
1	JUPITER	2201.25	37.00	105.25	0.00	0.00	0.00	0.00	0.00	69.82	1.00
2	BOSSIER	2172.50	32.00	95.00	0.00	0.00	0.00	0.00	0.00	18.30	1.00
8	FORREST	1993.75	32.00	98.00	0.00	0.00	0.00	0.00	0.00	29.52	1.00
4	CLARK 63	1855.00	30.00	90.00	0.00	0.00	0.00	0.00	0.00	39.58	1.00
3	WILLIAMS	1795.00	30.00	90.00	0.00	0.00	0.00	0.00	0.00	37.03	1.00
GRAND MEAN		2245.63	33.13	95.66	0.00	0.00	0.00	0.00	0.00	38.94	1.00
STANDARD ERROR OF A VARIETY MEAN		183.17	0.00	2.74	0.00	0.00	0.00	0.00	0.00	1.67	0.00
COEFFICIENT OF VARIATION		16.31%	0.00%	5.73%	0.00%	0.00%	0.00%	0.00%	0.00%	8.58%	0.00%
5% LSD VARIETY MEANS (*****=NS)		538.73	0.00	8.06	0.00	0.00	0.00	0.00	0.00	4.92	0.00
C O R R E L A T I O N S											
YIELD		KG/HA	(+ - PROB=.05 +- - PROB=.01)								
DAYS TO FLOWER	1.00	0.43+	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
DAYS TO MATURITY	0.43+	1.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.73++	0.00
NODULE NUMBER 1	0.18	0.31	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00
NODULE NUMBER 2	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PLANT	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
HEIGHT	0.03	0.73++	0.08	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.09	-0.19	-0.11	0.00	0.00	0.00	0.00	0.00	0.00	-0.23	0.00
PLANTS PER PLANT	0.04	0.75++	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.85++	0.00
PODS PER 100 SEED	-0.03	-0.35	0.30	0.00	0.00	0.00	0.00	0.00	0.00	-0.36+	0.00
QUALITY OF SEED	-0.45++	-0.07	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00

TABLE 79 EXPERIMENT 245 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	DAVIS	1.00	145.25	29.00	18.68	1.00
7	IMPROVED PELICAN	1.00	139.00	50.75	12.50	1.00
5	COBB	1.00	138.00	30.25	19.55	2.00
1	JUPITER	1.00	119.50	63.75	20.33	3.00
2	BOSSIER	1.00	132.50	30.25	19.48	2.00
8	FORREST	1.00	167.50	40.25	15.88	2.00
4	CLARK 63	1.00	141.00	32.00	17.63	2.00
3	WILLIAMS	1.00	137.00	33.75	18.83	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	139.97	38.75	17.86	1.88
COEFFICIENT OF VARIATION		0.00	9.46	2.21	0.28	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	13.51%	11.41%	3.18%	0.00%
		0.00	*****	6.50	0.83	0.00
C O R R E L A T I O N S (+ - PROB=-.05 ++ - PROB=-.01)						
YIELD	KG/HA	0.00	0.09	0.04	-0.03	-0.45++
DAYS TO FLOWER		0.00	-0.19	0.75++	-0.35	-0.07
DAYS TO MATURITY		0.00	-0.11	0.21	0.30	0.27
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	-0.23	0.85++	-0.36+	0.19
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.17	-0.20	-0.22
PODS PER	PLANT	0.00	-0.17	1.00	-0.20	0.39+
100 SEED	WEIGHT	0.00	-0.20	-0.20	1.00	0.60++
QUALITY	OF SEED	0.00	-0.22	0.39+	0.60++	1.00

TABLE 80 EXPERIMENT 151 YEAR 1976

REGION - AFRICA COUNTRY - LESOTHO
 SITE - MASERU ELEVATION - 1550 M
 LATITUDE - 29 DEG. 21 MIN. S LONGITUDE - 27 DEG. 30 MIN E
 COOPERATOR - CHEN-KIEN CHU
 DATE PLANTED - DECEMBER 22, 1976 DATE HARVESTED - APRIL, 1977
 SOIL TYPE - SILTY LOAM, PH 6.3
 FERTILIZER USED (KG/HA) - N 9.2, P 25.0, K 30.0
 AMOUNT OF MOISTURE - 509 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
2	WOODWORTH	3242.06	45.00	104.00	248.75	659.75	0.44	2.13	74.07	1.00
7	CUTLER 71	3229.02	46.75	112.25	262.75	803.75	0.69	3.34	93.67	1.25
9	WILLIAMS	3220.10	45.00	110.75	269.25	582.00	0.52	1.63	75.43	1.00
13	WELLS	2978.72	39.00	104.25	186.75	467.75	0.44	1.79	61.98	1.00
14	BEESON	2936.92	39.00	109.50	228.25	311.75	0.62	1.55	74.65	1.00
1	CALLAND	2929.54	42.75	113.75	151.75	409.75	0.43	1.96	89.00	1.75
10	CLARK 63	2894.54	44.50	111.25	204.50	526.00	0.41	2.03	84.87	1.00
15	ESSEX	2563.22	59.25	138.75	511.00	683.25	1.87	3.03	94.75	2.00
4	RANSOM	2338.22	57.50	125.00	678.00	930.50	1.54	2.53	100.63	4.00
3	BRAGG	1957.77	62.00	135.50	477.75	637.25	0.75	1.92	116.23	4.75
6	PICKETT 71	1906.13	66.00	127.75	372.25	309.00	0.73	1.69	93.35	4.25
12	FORREST	1792.82	59.50	135.50	348.25	663.75	0.83	2.31	106.73	5.00
8	BOSSIER	1646.62	68.00	139.75	621.00	523.00	1.97	2.52	100.80	5.00
5	HILL	1572.77	68.25	139.50	503.00	326.25	0.89	1.27	100.80	5.00
11	DAVIS	1031.87	74.00	149.75	466.25	352.25	1.77	2.38	115.93	5.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.89++	-0.89++	-0.87++	-0.39++	0.25	-0.43++	0.09	-0.74++	-0.89++
DAYS TO MATURITY		-0.87++	1.00	0.94++	0.55++	-0.09	0.55++	0.05	0.78++	0.90++
NODULE NUMBER 1		-0.39++	0.53++	0.53++	1.00	0.08	0.60++	0.09	0.82++	0.87++
NODULE NUMBER 2		0.25	-0.09	0.55++	0.82++	1.00	0.82++	0.41++	0.43++	0.49++
NODULE WEIGHT 1		-0.43++	0.55++	0.60++	0.45++	0.34++	1.00	0.73++	0.11	-0.11
NODULE WEIGHT 2		0.09	0.05	0.09	0.82++	0.73++	0.51++	1.00	0.45++	0.42++
PLANT HEIGHT		-0.74++	0.78++	0.82++	0.43++	0.11	0.45++	0.18	1.00	0.80++
LODGING		-0.89++	0.90++	0.87++	0.49++	-0.11	0.42++	-0.08	0.80++	1.00
SHATTER		-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.74++	-0.73++	-0.68++	-0.35++	0.16	-0.38++	-0.07	-0.54++	-0.73++
PLANT		-0.69++	0.75++	0.74++	0.46++	-0.06	0.40++	0.01	0.52++	0.74++
PODS PER 100 SEED		0.78++	-0.86++	-0.79++	-0.51++	0.02	-0.52++	-0.06	-0.53++	-0.73++
QUALITY OF SEED		-0.86++	0.82++	0.80++	0.37++	-0.15	0.43++	0.06	0.64++	0.81++

TABLE 80 EXPERIMENT 151 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
2	WOODWORTH	1.00	207.00	34.28	14.69	1.75	39.5	18.2
7	CUTLER 71	1.00	171.75	33.33	18.27	1.25	39.8	17.2
9	WILLIAMS	1.00	238.00	25.28	18.11	1.00	41.3	18.0
13	WELLS	1.00	213.50	32.20	14.99	1.25	40.5	18.6
14	BEESON	1.00	174.75	29.50	19.11	1.50	41.4	17.7
1	CALLAND	1.00	232.25	23.73	19.55	1.00	42.1	17.1
10	CLARK 63	1.00	229.50	29.10	15.72	1.00	42.0	17.7
15	ESSEX	1.00	201.50	52.58	11.20	2.00	41.7	15.2
4	RANSOM	1.00	205.25	41.50	13.40	2.50	39.7	16.3
3	BRAGG	1.00	157.00	43.28	13.58	2.00	42.0	14.0
6	PICKETT 71	1.00	121.00	56.95	11.39	3.00	42.3	13.9
12	FORREST	1.00	126.25	69.55	12.40	4.00	40.4	15.7
8	BOSSIER	1.00	86.75	60.58	12.30	3.00	41.7	13.8
5	HILL	1.00	130.00	61.88	10.67	3.75	42.5	14.4
11	DAVIS	1.00	119.00	51.63	10.08	5.00	41.3	16.3
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN			174.23	43.02	14.36	2.27		
COEFFICIENT OF VARIATION			10.44	4.10	0.25	0.20		
5% LSD VARIETY MEANS (*****=NS)			0.00%	19.06%	3.51%	17.49%		
			0.00	11.70	0.72	0.57		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.74++	-0.69++	0.78++	-0.86++		
DAYS TO FLOWER		0.00	-0.73++	0.75++	-0.86++	0.82++		
DAYS TO MATURITY		0.00	-0.68++	0.74++	-0.79++	0.80++		
NODULE NUMBER 1		0.00	-0.35++	0.46++	-0.51++	0.37++		
NODULE NUMBER 2		0.00	0.16	-0.06	0.02	-0.15		
NODULE WEIGHT 1		0.00	-0.38++	0.40++	-0.52++	0.43++		
NODULE WEIGHT 2		0.00	-0.07	0.01	-0.06	0.06		
PLANT HEIGHT		0.00	-0.54++	0.52++	-0.55++	0.64++		
LODGING		0.00	-0.73++	0.74++	-0.73++	0.81++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.72++	0.57++	-0.74++		
PODS PER PLANT		0.00	-0.72++	1.00	-0.75++	0.71++		
100 SEED WEIGHT		0.00	0.57++	-0.75++	1.00	-0.78++		
QUALITY OF SEED		0.00	-0.74++	0.71++	-0.78++	1.00		

TABLE 81 EXPERIMENT 230

YEAR 1976

REGION - AFRICA
 SITE - KOULIKORO
 LATITUDE - 12 DEG. 55 MIN. N
 COOPERATOR - M. CRAMBADE
 DATE PLANTED - JULY 26, 1976
 SOIL TYPE - SAND 52.5%, SILT 39.8%, CLAY 7.7%, PH 6.3
 FERTILIZER USED (KG/HA) - N 7.2, P 18.4, K 30.0
 AMOUNT OF MOISTURE - 488 MM

COUNTRY - MALI
 ELEVATION - 326 M
 LONGITUDE - 7 DEG. 33 MIN. W

DATE HARVESTED - NOVEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	COBB	733.48	0.00	86.00	0.00	0.00	0.00	0.00	26.50	1.50
1	TGM 256-1-B	733.48	0.00	86.00	0.00	0.00	0.00	0.00	58.00	2.25
4	WILLIAMS	729.31	0.00	82.00	0.00	0.00	0.00	0.00	47.50	1.75
3	BOSSIER	720.98	0.00	86.00	0.00	0.00	0.00	0.00	32.25	2.25
9	FORREST	662.63	0.00	86.00	0.00	0.00	0.00	0.00	29.00	2.50
5	CLARK 63	637.63	0.00	82.00	0.00	0.00	0.00	0.00	47.25	2.75
7	DAVIS	508.43	0.00	86.00	0.00	0.00	0.00	0.00	24.25	2.00
8	IMPROVED PELICAN	483.43	0.00	86.00	0.00	0.00	0.00	0.00	52.00	1.50
2	JUPITER	416.75	0.00	97.00	0.00	0.00	0.00	0.00	45.25	2.75
	GRAND MEAN	625.12	0.00	86.33	0.00	0.00	0.00	0.00	40.22	2.14
	STANDARD ERROR OF A VARIETY MEAN	107.94	0.00	0.00	0.00	0.00	0.00	0.00	3.26	0.49
	COEFFICIENT OF VARIATION	34.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	16.19%	45.44%
	5% LSD VARIETY MEANS (*****=NS)	*****	0.00	0.00	0.00	0.00	0.00	0.00	9.50	*****
C O R R E L A T I O N S										
	YIELD	KG/HA								
	DAYS TO FLOWER	1.00								
	DAYS TO MATURITY	0.00	1.00							
	NODULE NUMBER 1	-0.31	0.00	1.00						
	NODULE NUMBER 2	0.00	0.00	0.00	1.00					
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	1.00				
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	1.00			
	PLANT	0.00	0.00	0.00	0.00	0.00	0.00	1.00		
	LODGING	0.07	0.00	-0.00	0.00	0.00	0.00	0.00	1.00	
	SHATTER	0.19	0.00	0.16	0.00	0.00	0.00	0.00	-0.11	1.00
	HARVEST	0.07	0.00	0.39+	0.00	0.00	0.00	0.00	0.35+	0.47++
	PLANTS PER PLANT	0.24	0.00	-0.48++	0.00	0.00	0.00	0.00	0.07	-0.23
	PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100 SEED WEIGHT	0.24	0.00	-0.14	0.00	0.00	0.00	0.00	-0.01	-0.16
	QUALITY OF SEED	0.08	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.22

TABLE 81 EXPERIMENT 230 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
6	COBB	1.50	43.25	0.00	12.45	4.25	43.0	25.5
1	TGM 256-1-B	3.00	27.00	0.00	9.67	4.50	--	--
4	WILLIAMS	2.00	97.25	0.00	14.20	5.00	43.5	27.4
3	BOSSIER	1.50	41.25	0.00	12.23	4.50	44.5	25.3
9	FORREST	1.00	35.25	0.00	11.65	5.00	42.3	23.5
5	CLARK 63	1.75	82.00	0.00	12.08	5.00	42.6	27.3
7	DAVIS	1.25	73.50	0.00	11.03	4.25	42.9	24.7
8	IMPROVED PELICAN	1.00	33.50	0.00	11.03	4.00	45.4	22.8
2	JUPITER	3.00	33.25	0.00	12.03	5.00	45.2	23.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.78	51.81	0.00	11.87	4.61		
COEFFICIENT OF VARIATION		0.27	9.32	0.00	0.73	0.18		
5% LSD VARIETY MEANS (*****=NS)		30.01%	35.99%	0.00%	12.26%	7.88%		
		0.78	27.21	0.00	2.12	0.53		
C O R R E L A T I O N S								
		(+ - PROB=-.05		++ - PROB=-.01)				
YIELD		KG/HA	0.07	0.24	0.00	0.08		
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00		
DAYS TO MATURITY		0.39+	-0.48++	0.00	-0.14	0.06		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT		HEIGHT	0.35+	0.00	-0.01	0.00		
		LODGING	0.47++	0.00	-0.23	0.22		
		SHATTER	1.00	0.00	-0.16	0.25		
PLANTS		HARVEST	-0.19	0.00	-0.23	0.28		
PODS PER		PLANT	0.00	1.00	0.44++	0.00		
100 SEED		WEIGHT	-0.23	0.00	1.00	0.12		
QUALITY OF SEED			0.25	0.28	6.12	1.00		

TABLE 82

EXPERIMENT 226

YEAR 1976

REGION - AFRICA

SITE - MARADI

LATITUDE - 13 DEG. 28 MIN. N

COOPERATOR - INRAN

DATE PLANTED - JULY 8, 1976

SOIL TYPE - CLAY + FINE SILT 17%, PH 6.5

FERTILIZER USED (KG/HA) - P 45.0

AMOUNT OF MOISTURE - 484 MM

NUMBER OF IRRIGATIONS - 1

COUNTRY - NIGER

ELEVATION - 351 M

LONGITUDE - 7 DEG. 7 MIN. E

DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	DAVIS	4438.39	32.50	72.00	3.75	0.00	0.00	0.00	0.00	0.00
13	COBB	4146.66	28.50	72.00	4.00	0.00	0.00	0.00	0.00	0.00
16	FORREST	4125.82	27.25	69.00	2.00	0.00	0.00	0.00	0.00	0.00
10	BOSSLER	3938.29	26.50	72.00	3.75	0.00	0.00	0.00	0.00	0.00
3	TGM 255-2-4341	3750.75	38.00	72.00	4.25	0.00	0.00	0.00	0.00	0.00
8	TGM 256-1-B	3688.24	38.00	75.00	1.25	0.00	0.00	0.00	0.00	0.00
11	WILLIAMS	3688.24	26.50	72.00	3.25	0.00	0.00	0.00	0.00	0.00
7	TGX 13-3-2644	3563.21	38.00	78.00	1.75	0.00	0.00	0.00	0.00	0.00
2	TGM 210-1-2363	3375.67	38.00	75.00	2.50	0.00	0.00	0.00	0.00	0.00
9	JUPITER	3250.65	38.00	81.00	1.75	0.00	0.00	0.00	0.00	0.00
5	TGM 294-4-2371	3208.97	38.00	75.00	3.50	0.00	0.00	0.00	0.00	0.00
12	CLARK 63	3104.79	25.75	69.00	3.50	0.00	0.00	0.00	0.00	0.00
6	TGX 66-5100	3021.44	38.00	72.00	4.75	0.00	0.00	0.00	0.00	0.00
4	TGM 249-4-B	2917.25	35.50	78.00	3.00	0.00	0.00	0.00	0.00	0.00
15	IMPROVED PELICAN	2875.57	38.00	72.00	5.25	0.00	0.00	0.00	0.00	0.00
1	TGM 220-1-2205	2813.06	38.00	81.00	1.25	0.00	0.00	0.00	0.00	0.00
GRAND MEAN										
3494.19										
STANDARD ERROR OF A VARIETY MEAN										
326.89										
COEFFICIENT OF VARIATION										
18.71%										
5% LSD VARIETY MEANS (*****=NS)										
931.13										
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.29+								
DAYS TO MATURITY		1.00								
NODULE NUMBER 1		-0.12								
NODULE NUMBER 2		-0.01								
NODULE WEIGHT 1		0.00								
NODULE WEIGHT 2		0.00								
PLANT		0.00								
HEIGHT		0.00								
LODGING		0.00								
SHATTER		0.00								
HARVEST		0.40++								
PLANT		-0.01								
PODS PER 100 SEED		0.00								
QUALITY OF SEED		0.00								

TABLE 82 EXPERIMENT 226 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	DAVIS	0.00	127.50	5.20	0.00	0.00	--	--
13	COBB	0.00	120.00	5.20	0.00	0.00	39.9	25.2
16	FORREST	0.00	139.25	6.67	0.00	0.00	41.8	24.3
10	BOSSIER	0.00	109.25	4.30	0.00	0.00	46.9	23.8
3	TGM 255-2-4341	0.00	132.50	9.30	0.00	0.00	43.5	25.4
8	TGM 256-1-B	0.00	100.00	7.37	0.00	0.00	48.6	20.9
11	WILLIAMS	0.00	142.00	4.32	0.00	0.00	43.1	24.9
7	TGX 13-3-2644	0.00	116.50	5.75	0.00	0.00	43.8	24.1
2	TGM 210-1-2363	0.00	109.25	8.42	0.00	0.00	46.1	22.7
9	JUPITER	0.00	82.75	6.20	0.00	0.00	44.4	25.6
5	TGM 294-4-2371	0.00	99.00	5.90	0.00	0.00	47.7	21.5
12	CLARK 63	0.00	146.25	3.48	0.00	0.00	43.1	24.4
6	TGX 66-5100	0.00	122.25	5.47	0.00	0.00	43.7	21.8
4	TGM 249-4-B	0.00	53.75	10.88	0.00	0.00	42.9	26.8
15	IMPROVED PELICAN	0.00	128.75	4.97	0.00	0.00	42.8	25.4
1	TGM 220-1-2205	0.00	32.00	5.60	0.00	0.00	45.4	26.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	110.06	6.19	0.00	0.00	0.00	0.00
COEFFICIENT OF VARIATION		0.00%	8.15	0.96	0.00	0.00	0.00	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	14.81%	30.98%	0.00%	0.00%	0.00%	0.00%
C O R R E L A T I O N S								
		(+ - PROB=.05		++ - PROB=.01)				
YIELD		0.00	0.40++	-0.01	0.00	0.00	0.00	0.00
KG/HA		0.00	-0.41++	0.33++	0.00	0.00	0.00	0.00
DAYS TO FLOWER		0.00	-0.53++	0.05	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.44++	-0.18	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00
HEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.29+	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	-0.29+	1.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00	0.00	0.00

TABLE 83 EXPERIMENT 399 YEAR 1976

REGION - AFRICA

COUNTRY - NIGERIA

SITE - IBADAN

COOPERATORS - D. NANGJU, J.P. SINGH

DATE HARVESTED - DECEMBER, 1976

DATE PLANTED - AUGUST 23, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	FORREST	2861.00	37.00	92.00	173.50	139.50	0.74	0.91	47.65	2.25
10	BOSSIER	2735.50	37.00	92.00	303.50	310.00	1.30	1.70	62.28	2.75
1	TGM 220-1-2205	2346.50	41.00	92.00	440.00	238.00	1.65	1.37	57.45	3.00
12	COBB	2315.25	31.00	92.00	213.50	216.00	0.98	1.32	44.78	1.00
13	DAVIS	2284.53	37.00	92.00	221.50	201.00	1.35	1.71	38.15	1.00
5	TGM 294-4-2371	2262.66	41.00	92.00	311.75	231.50	1.41	1.52	72.18	2.00
2	TGM 210-1-2363	2227.25	37.00	92.00	203.50	184.00	0.83	1.16	54.88	2.00
14	IMPROVED PELICAN	2123.62	37.00	92.00	161.50	194.00	0.81	1.74	80.55	4.00
11	WILLIAMS	2116.33	27.00	92.00	281.75	176.00	1.80	1.36	57.05	1.00
7	TX 13-3-2644	2092.89	37.00	92.00	127.75	158.75	0.79	1.17	79.95	2.00
6	TX 66-5100	2085.08	37.00	92.00	126.50	142.75	0.72	1.28	82.75	2.50
8	TGM 256-1-B	2036.13	41.00	92.00	287.50	189.75	1.45	1.44	65.00	2.00
4	TGM 249-4-B	1749.72	37.00	92.00	154.75	351.25	0.81	1.73	67.55	1.50
9	JUPITER	1728.37	41.00	101.00	226.75	207.75	1.02	1.65	82.55	2.00
3	TGM 255-2-4341	1699.73	37.00	92.00	186.50	175.75	0.97	1.17	70.12	3.50
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		2177.64	37.00	92.60	228.02	210.00	1.11	1.42	64.19	2.17
COEFFICIENT OF VARIATION		161.71	0.00	0.00	37.76	35.52	0.24	0.29	2.66	0.22
5% LSD VARIETY MEANS (*****=NS)		14.85%	0.00%	0.00%	33.12%	33.83%	43.93%	41.68%	8.27%	20.35%
		461.54	0.00	0.00	107.78	101.37	0.69	*****	7.58	0.63
CORRELATIONS (+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.07	1.00							
DAYS TO MATURITY		-0.29+	0.29+	1.00						
NODULE NUMBER 1		-0.29+	0.19	0.00	1.00					
NODULE NUMBER 2		0.06	0.09	-0.01	0.30+	1.00				
NODULE WEIGHT 1		0.04	0.06	-0.04	0.74++	0.25	1.00			
NODULE WEIGHT 2		-0.01	0.07	0.11	0.22	0.74++	0.25	1.00		
PLANT HEIGHT		-0.39++	-0.34++	-0.05	-0.18	-0.05	-0.15	0.12	1.00	
LODGING		0.02	0.39++	-0.05	0.05	-0.04	-0.11	-0.01	0.43++	1.00
SHATTER		0.07	0.0	-0.10	-0.06	-0.00	-0.01	0.01	-0.48++	-0.28+
HARVEST		0.23	0.26+	-0.19	0.08	-0.17	-0.07	-0.13	0.71++	0.22
PODS PER PLANT		-0.20	-0.25+	-0.03	-0.08	0.32+	0.02	0.26+	-0.20	-0.55++
100 SEED WEIGHT		0.36++	-0.68++	-0.16	0.01	-0.12	0.09	-0.03	-0.46++	-0.50++
QUALITY OF SEED		0.10	0.03	0.60++	0.13	-0.13	0.11	-0.05	-0.16	-0.38++

TABLE 83 EXPERIMENT 399 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
15	PORREST	1.00	272.00	20.75	17.66	2.00	43.5	21.6
10	BOSSIER	1.00	272.25	19.60	16.77	1.50	45.7	21.2
1	TGM 220-1-2205	1.00	338.00	15.93	14.50	2.00	45.2	20.7
12	COBB	1.00	101.50	46.28	19.82	2.00	40.1	23.9
13	DAVIS	3.00	149.75	34.35	19.85	2.00	46.6	20.1
5	TGM 294-4-2371	1.00	238.00	20.68	15.88	1.50	48.3	18.2
2	TGM 210-1-2363	3.00	304.50	11.28	17.11	1.25	45.4	21.0
14	IMPROVED PELICAN	1.00	343.75	13.40	15.55	1.00	45.2	21.6
11	WILLIAMS	1.00	141.75	38.30	20.26	2.00	42.9	24.1
7	TGX 13-3-2644	1.00	246.75	20.78	16.96	2.00	43.7	22.1
6	TGX 66-5100	1.00	274.25	15.65	16.83	1.00	44.8	20.1
8	TGM 256-1-B	1.00	123.00	37.73	14.07	1.75	47.8	18.5
4	TGM 249-4-B	1.00	68.25	70.00	14.19	1.00	45.9	21.2
9	JUPITER	1.00	150.25	25.10	15.30	3.00	45.2	20.8
3	TGM 255-2-4341	1.00	291.75	19.00	14.72	1.00	45.2	22.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.27	221.05	27.25	16.63	1.67		
COEFFICIENT OF VARIATION		0.00	26.77	6.53	0.58	0.14		
5% LSD VARIETY MEANS (*****=NS)		0.00	24.22	47.95	6.98	16.99		
		0.00	76.41	18.65	1.66	0.40		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.07	0.23	-0.20	0.36++	0.10		
DAYS TO FLOWER		0.0	0.26+	-0.25+	-0.68++	0.03		
DAYS TO MATURITY		-0.10	-0.19	-0.03	-0.16	0.60++		
NODULE NUMBER 1		-0.06	0.08	-0.08	0.01	0.13		
NODULE NUMBER 2		-0.00	-0.17	0.32+	-0.12	-0.13		
NODULE WEIGHT 1		-0.01	-0.07	0.02	0.09	0.11		
NODULE WEIGHT 2		0.01	-0.13	0.26+	-0.03	-0.05		
PLANT		-0.48++	0.22	-0.20	-0.50++	-0.16		
LODGING		-0.28+	0.71++	-0.55++	-0.46++	-0.38++		
SHATTER		1.00	0.02	-0.09	0.33+	-0.03		
PLANTS		0.02	1.00	-0.80++	-0.15	-0.30+		
PODS PER PLANT		-0.09	-0.80++	1.00	-0.01	0.05		
100 SEED WEIGHT		0.33+	-0.15	-0.01	1.00	0.20		
QUALITY OF SEED		-0.03	-0.30+	0.05	0.20	1.00		

TABLE 84 EXPERIMENT 59 YEAR 1976

REGION - AFRICA COUNTRY - RHODESIA
 SITE - SALISBURY ELEVATION - 1506 M
 LATITUDE - 17 DEG. 48 MIN. S LONGITUDE - 31 DEG. 3 MIN. E
 COOPERATORS - J.R. TATTERSFIELD, J.S. TICHAGWA
 DATE PLANTED - DECEMBER 10, 1976 DATE HARVESTED - APRIL, 1977
 SOIL TYPE - CLAY, PH 5.9
 FERTILIZER USED (KG/HA) - N 24.0, P 19.0, K 25.0
 AMOUNT OF MOISTURE - 904 MM
 NUMBER OF IRRIGATIONS - 4
 LOCAL VARIETY - ORIBI

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
16	ESSEX	3395.29	42.00	121.75	352.25	521.50	0.82	1.89	61.00	1.00
3	BRAGG	3374.46	42.00	120.00	255.25	707.50	0.75	2.45	64.50	2.00
4	RANSOM	3369.25	39.00	123.00	208.50	595.25	0.39	2.05	49.50	1.00
14	FORREST	3265.10	46.00	123.75	249.75	500.00	0.81	2.19	76.25	4.00
15	COLUMBUS	3176.57	31.25	116.00	210.00	473.25	0.49	2.13	70.25	1.00
1	CALLAND	3155.74	29.75	109.00	208.50	353.00	0.61	2.35	59.50	1.00
12	DAVIS	3046.39	60.00	126.00	372.00	644.25	1.71	3.63	84.00	1.25
10	CLARK 63	3030.76	29.00	102.75	216.25	356.00	0.48	2.15	57.00	1.25
8	BOSSIER	2968.27	46.00	123.75	357.00	476.75	1.24	2.26	66.00	1.00
9	WILLIAMS	2931.82	29.00	98.00	321.00	388.75	0.54	2.01	50.00	1.25
7	ORIBI	2921.41	46.00	124.50	253.25	551.75	0.82	1.87	89.50	1.00
5	HILL	2827.67	53.00	118.25	285.50	486.00	0.93	2.41	73.75	2.75
6	PICKETT 71	2692.28	46.00	116.00	267.00	395.50	0.84	1.68	45.75	1.00
11	COBB	2681.86	53.00	126.00	389.50	721.75	1.25	2.90	87.00	2.50
2	WOODWORTH	2213.19	29.00	95.00	245.75	370.50	0.47	2.65	49.50	1.50
13	IMPROVED PELICAN	2109.04	67.00	148.00	359.00	500.75	1.23	2.03	122.00	3.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		2947.44	43.00	117.98	284.41	502.66	0.84	2.29	69.09	1.66
COEFFICIENT OF VARIATION		122.89	0.27	0.68	30.19	37.32	0.08	0.17	1.71	0.19
5% LSD VARIETY MEANS (*****=NS)		8.34%	1.27%	1.16%	21.23%	14.85%	20.27%	15.16%	4.95%	22.84%
C O R R E L A T I O N S (+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	-0.27+	-0.02	-0.24	0.16	-0.21	-0.12	-0.34++	-0.22
DAYS TO FLOWER		-0.27+	1.00	0.86++	0.47++	0.48++	0.76++	0.24	0.77++	0.46++
DAYS TO MATURITY		-0.02	0.86++	1.00	0.33++	0.51++	0.57++	0.02	0.77++	0.36++
NODULE NUMBER 1		-0.24	0.47++	0.33++	1.00	0.41++	0.78++	0.43++	0.35++	0.07
NODULE NUMBER 2		0.16	0.48++	0.51++	0.41++	1.00	0.47++	0.50++	0.36++	0.16
NODULE WEIGHT 1		-0.21	0.76++	0.57++	0.78++	0.47++	1.00	0.54++	0.56++	0.17
NODULE WEIGHT 2		-0.12	0.24	0.02	0.43++	0.50++	0.54++	1.00	0.17	0.06
PLANT HEIGHT		-0.34++	0.77++	0.77++	0.35++	0.36++	0.56++	0.17	1.00	0.50++
LODGING		-0.22	0.46++	0.36++	0.07	0.16	0.17	0.06	0.50++	1.00
SHATTER		-0.38++	-0.42++	-0.60++	-0.06	-0.37++	-0.28+	0.13	-0.35++	-0.10
PLANTS HARVEST		0.09	0.12	0.10	-0.06	0.07	0.03	-0.04	0.01	-0.03
PODS PER PLANT		-0.29+	0.61++	0.59++	0.22	0.25+	0.36++	0.01	0.65++	0.30+
100 SEED WEIGHT		0.45++	-0.53++	-0.34++	-0.30+	-0.04	-0.32+	-0.05	-0.40++	-0.55++
QUALITY OF SEED		-0.15	-0.28+	-0.29+	-0.07	-0.28+	-0.24	0.00	-0.23	0.17

TABLE 84 EXPERIMENT 59 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	ESSEX	1.00	195.75	37.48	17.13	1.75	44.1	19.1
3	BRAGG	1.00	198.00	32.58	22.24	2.00	42.0	18.8
4	RANSOM	1.00	195.25	23.03	22.29	2.50	42.2	21.8
14	FORREST	1.00	194.50	31.13	17.32	2.75	40.1	19.6
15	COLUMBUS	1.00	195.00	27.38	20.41	2.00	43.6	19.5
1	CALLAND	1.25	191.25	21.20	23.88	2.50	44.3	19.0
12	DAVIS	1.00	199.25	38.50	20.38	1.75	42.3	20.0
10	CLARK 63	1.00	194.75	20.35	20.41	2.50	41.9	20.6
8	BOSSIER	1.00	197.00	30.35	20.61	2.25	44.9	18.5
9	WILLIAMS	1.75	196.00	32.60	23.36	2.75	42.6	19.9
7	ORIBI	0.75	195.75	41.83	22.10	1.00	38.0	18.8
5	HILL	1.00	196.00	33.38	15.59	2.00	41.6	18.3
6	PICKETT 71	1.00	195.25	29.55	18.84	2.00	43.3	19.7
11	COBB	1.00	189.50	41.68	18.49	2.00	40.6	18.7
2	WOODWORTH	3.25	192.50	18.38	17.55	2.75	39.6	20.2
13	IMPROVED PELICAN	1.00	196.00	66.60	15.37	2.50	43.3	16.4
CORRELATIONS								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 85 EXPERIMENT 284 YEAR 1976

REGION - AFRICA COUNTRY - SOMALIA
 SITE - AFGOI ELEVATION - 13 M
 LATITUDE - 2 DEG. 8 MIN. N LONGITUDE - 45 DEG. 7 MIN. E
 COOPERATORS - M.A. ARKOW, S.J. OSOBE
 DATE PLANTED - SEPTEMBER 28, 1976 DATE HARVESTED - JANUARY, 1977
 SOIL TYPE - CLAY, PH 7.7
 AMOUNT OF MOISTURE - 130 MM
 NUMBER OF IRRIGATIONS - 3

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	JUPITER	3448.26	37.00	117.75	53.75	0.00	0.00	0.00	100.00	2.00
3	WILLIAMS	2067.39	32.25	89.00	75.25	0.00	0.00	0.00	48.75	2.00
4	CLARK 63	2034.54	34.00	90.75	68.00	0.00	0.00	0.00	53.75	2.50
7	IMPROVED PELICAN	1807.49	39.25	97.00	67.00	0.00	0.00	0.00	72.50	1.50
2	BOSSIER	1715.03	31.75	95.00	73.75	0.00	0.00	0.00	38.75	2.25
6	DAVIS	1523.32	32.50	101.00	51.75	0.00	0.00	0.00	45.50	2.75
5	COBB	1516.89	35.50	100.75	61.25	0.00	0.00	0.00	41.25	2.00
8	FORREST	1440.14	36.00	92.75	36.00	0.00	0.00	0.00	42.50	1.50
GRAND MEAN		1944.13	34.78	98.00	60.84	0.00	0.00	0.00	55.38	2.06
STANDARD ERROR OF A VARIETY MEAN		223.61	0.62	1.68	12.12	0.00	0.00	0.00	3.34	0.28
COEFFICIENT OF VARIATION		23.00%	3.54%	3.43%	39.84%	0.00%	0.00%	0.00%	12.05%	26.71%
5% LSD VARIETY MEANS (*****=NS)		657.65	1.81	4.95	*****	0.00	0.00	0.00	9.82	0.81
CORRELATIONS										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.15	0.44+	-0.03	0.00	0.00	0.00	0.56++	0.16
DAYS TO FLOWER	0.15	1.00	0.35+	0.35+	0.02	0.00	0.00	0.00	0.57++	-0.38+
DAYS TO MATURITY	0.44+	0.35+	1.00	1.00	0.01	0.00	0.00	0.00	0.67++	-0.10
NODULE NUMBER 1	-0.03	0.02	0.01	0.01	1.00	0.00	0.00	0.00	-0.04	-0.14
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.56++	0.57++	0.67++	0.67++	-0.04	0.00	0.00	0.00	1.00	-0.20
LODGING	0.16	-0.38+	-0.10	-0.10	-0.14	0.00	0.00	0.00	-0.20	1.00
SHATTER	-0.33	-0.46++	-0.49++	-0.49++	0.02	0.00	0.00	0.00	-0.59++	0.20
HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS PER PLANT	0.09	0.07	0.07	0.07	-0.25	0.00	0.00	0.00	0.23	-0.19
PODS PER 100 SEED	0.55++	0.29	0.33	0.33	0.56++	0.00	0.00	0.00	0.54++	-0.15
QUALITY OF SEED	-0.53++	0.05	-0.41+	-0.41+	0.07	0.00	0.00	0.00	-0.53++	-0.11

TABLE 85

EXPERIMENT 284

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHAFTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	JUPITER	1.00	0.00	21.75	21.15	1.50	40.8	26.1
3	WILLIAMS	1.75	0.00	20.50	18.68	2.25	41.8	24.9
4	CLARK 63	1.25	0.00	13.75	16.95	2.00	40.8	25.8
7	IMPROVED PELICAN	1.00	0.00	31.50	16.63	2.25	41.7	24.6
2	BOSSIER	2.00	0.00	22.25	16.50	2.25	42.9	23.7
6	DAVIS	1.50	0.00	19.50	16.18	2.25	42.1	24.6
5	COBB	1.50	0.00	21.25	17.90	2.75	39.0	25.0
8	FORREST	1.75	0.00	18.25	14.58	3.25	41.0	24.0
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.47	0.00	21.09	17.32	2.31		
COEFFICIENT OF VARIATION		0.19	0.00	2.84	0.77	0.25		
5% LSD VARIETY MEANS (*****=NS)		25.33%	0.00%	26.93%	8.88%	21.88%		
		0.55	0.00	8.35	2.26	0.74		
C O R R E L A T I O N S								
			(+ - PROB=.05			++ - PROB=.01)		
YIELD	KG/HA	-0.33	0.00	0.09	0.55++	-0.53++		
DAYS TO FLOWER		-0.46++	0.00	0.29	0.07	0.05		
DAYS TO MATURITY		-0.49++	0.00	0.07	0.56++	-0.41+		
NODULE NUMBER 1		0.02	0.00	-0.25	0.33	0.07		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT	HEIGHT	-0.59++	0.00	0.23	0.54++	-0.53++		
LODGING		0.20	0.00	-0.19	-0.15	-0.11		
SHAFTER		1.00	0.00	-0.20	-0.27	0.40+		
PLANTS	HARVEST	0.00	1.00	0.00	0.00	0.00		
PODS PER PLANT		-0.20	0.00	1.00	-0.06	-0.21		
100 SEED WEIGHT		-0.27	0.00	-0.06	1.00	-0.33		
QUALITY OF SEED		0.40+	0.00	-0.21	-0.33	1.00		

TABLE 86 EXPERIMENT 267 YEAR 1976

REGION - AFRICA COUNTRY - SUDAN
 SITE - WAU ELEVATION - 450 M
 LATITUDE - 7 DEG. 36 MIN. N LONGITUDE - 27 DEG. 53 MIN. E
 COOPERATORS - D. HOPKINSON, H.L.M. VAN WISSEN
 DATE PLANTED - JULY 27 AND DATE HARVESTED - OCTOBER, 1976
 AUGUST 13, 1976
 SOIL TYPE - SAND 68.6%, SILT 10.1%, CLAY 21.3%, PH 6.8
 AMOUNT OF MOISTURE - 450 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
16	FORREST	1179.40	0.00	78.00	0.00	0.00	0.00	0.00	25.40	1.50
11	WILLIAMS	1104.39	0.00	73.00	0.00	0.00	0.00	0.00	39.70	2.00
15	IMPROVED PELICAN	1087.72	0.00	82.50	0.00	0.00	0.00	0.00	53.15	1.75
14	DAVIS	1029.37	0.00	86.25	0.00	0.00	0.00	0.00	28.00	2.00
9	JUPIER	971.03	0.00	97.00	0.00	0.00	0.00	0.00	45.80	1.75
13	COBB	841.83	0.00	83.00	0.00	0.00	0.00	0.00	24.95	2.00
12	CLARK 63	833.50	0.00	73.00	0.00	0.00	0.00	0.00	35.25	2.75
10	BOSSIER	679.30	0.00	73.00	0.00	0.00	0.00	0.00	21.30	2.00
8	TGM 256-1-B	558.44	0.00	104.25	0.00	0.00	0.00	0.00	36.00	1.50
2	TGM 210-1-2363	495.93	0.00	99.25	0.00	0.00	0.00	0.00	26.25	1.00
7	TGX 13-3-2644	487.60	0.00	112.50	0.00	0.00	0.00	0.00	40.95	1.75
6	TGX 66-5100	437.59	0.00	112.50	0.00	0.00	0.00	0.00	40.35	1.75
1	TGM 220-1-2205	420.92	0.00	101.50	0.00	0.00	0.00	0.00	26.00	1.50
5	TGM 294-4-2371	412.58	0.00	111.00	0.00	0.00	0.00	0.00	39.75	1.75
3	TGM 255-2-4341	275.05	0.00	113.25	0.00	0.00	0.00	0.00	32.25	1.50
4	TGM 249-4-B	54.18	0.00	112.00	0.00	0.00	0.00	0.00	44.80	1.75
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		679.30	0.00	94.50	0.00	0.00	0.00	0.00	34.99	1.77
COEFFICIENT OF VARIATION		84.66	0.00	0.98	0.00	0.00	0.00	0.00	2.23	0.27
5% LSI VARIETY MEANS (*****=NS)		24.93%	0.00%	2.08%	0.00%	0.00%	0.00%	0.00%	12.72%	30.68%
		241.15	0.00	2.80	0.00	0.00	0.00	0.00	6.34	*****
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.00	-0.72++	0.00	0.00	0.00	0.00	0.04	0.19
DAYS TO FLOWER	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	-0.72++	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.27+	-0.31+
MODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
MODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
MODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.04
SHATTER	-0.45++	0.00	0.00	-0.31+	0.00	0.00	0.00	0.00	0.04	1.00
PLANTS HARVEST	0.74++	0.00	0.00	0.49++	0.00	0.00	0.00	0.00	-0.13	-0.19
PODS PER PLANT	-0.37++	0.00	0.00	-0.76++	0.00	0.00	0.00	0.00	-0.20	-0.26+
100 SEED WEIGHT	0.44++	0.00	0.00	0.58++	0.00	0.00	0.00	0.00	0.29+	0.18
QUALITY OF SEED	0.28+	0.00	0.00	-0.48++	0.00	0.00	0.00	0.00	0.06	0.31+
				-0.22	0.00	0.00	0.00	0.00	0.00	0.01

TABLE 86 EXPERIMENT 267 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	FORREST	1.00	122.50	24.87	12.67	4.00	43.4	20.4
11	WILLIAMS	1.00	126.50	15.20	16.53	2.75	45.1	22.7
15	IMPROVED PELICAN	1.25	92.25	34.03	12.19	2.00	42.4	23.9
14	DAVIS	1.75	123.00	17.95	14.74	2.00	42.9	21.8
9	JUPITER	1.75	84.50	29.42	15.13	3.25	42.9	22.9
13	COBB	2.00	104.25	17.63	15.49	1.75	40.8	22.1
12	CLARK 63	1.50	115.25	15.30	15.18	2.50	41.7	23.5
10	BOSSIER	1.00	106.00	19.10	13.40	2.50	42.7	21.8
8	TGM 256-1-B	1.50	85.50	20.83	10.75	2.25	45.4	19.4
2	TGM 210-1-2363	3.75	75.25	24.28	13.28	1.25	43.8	21.4
7	TGX 13-3-2644	2.00	35.00	45.20	13.73	2.00	42.3	21.9
6	TGX 66-5100	2.00	41.00	44.57	12.58	1.50	43.8	19.1
1	TGM 220-1-2205	3.00	37.75	38.37	10.20	3.00	41.1	20.2
5	TGM 294-4-2371	2.00	107.00	17.45	13.55	2.00	46.3	18.4
3	TGM 255-2-4341	2.25	19.00	43.98	9.77	2.75	45.6	17.1
4	TGM 249-4-B	2.25	8.75	45.07	12.50	2.25	44.9	20.1
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.88	80.22	28.33	13.23	2.36		
COEFFICIENT OF VARIATION		0.23	7.18	4.26	0.49	0.29		
5% LSD VARIETY MEANS (*****=NS)		24.98%	17.91%	30.09%	7.35%	24.64%		
		0.67	20.46	12.14	1.38	0.83		
C O R R E L A T I O N S								
		(+ - PROB=-.05			++ - PROB=-.01)			
YIELD	KG/HA	-0.45++	0.74++	-0.37++	0.44++	0.28+		
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00		
DAYS TO MATURITY		0.49++	-0.76++	0.58++	-0.48++	-0.22		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT	HEIGHT	-0.13	-0.20	0.29+	0.06	0.00		
LODGING		-0.19	0.26+	-0.27+	0.31+	0.01		
SHATTER		1.00	-0.47++	0.27+	-0.21	-0.32+		
PLANTS	HARVEST	-0.47++	1.00	-0.74++	0.51++	0.11		
PODS PER PLANT		0.27+	-0.74++	1.00	-0.39++	-0.13		
100 SEED WEIGHT		-0.21	0.51++	-0.39++	1.00	-0.10		
QUALITY OF SEED		-0.32+	0.11	-0.13	-0.10	1.00		

TABLE 87 EXPERIMENT 144 YEAR 1976

REGION - AFRICA COUNTRY - SWAZILAND
 SITE - BIGBEND ELEVATION - 150 M
 LATITUDE - 26 DEG. 52 MIN. S LONGITUDE - 31 DEG. 55 MIN. E
 COOPERATOR - J. CUMBERLAND
 DATE PLANTED - OCTOBER 16, 1976
 SOIL TYPE - SAND 30%, SILT 20%, CLAY 50%
 FERTILIZER USED (KG/HA) - P 40.0, K 60.0
 LOCAL VARIETY - WELKOM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	WEIGHT 1	WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSOM	3854.94	70.00	0.00	205.50	192.00	1.56	3.01	0.00	0.00
6	PICKETT 71	3782.01	72.50	0.00	168.00	165.00	0.88	2.49	0.00	0.00
11	DAVIS	3709.07	68.25	0.00	144.75	119.75	1.46	2.72	0.00	0.00
16	WELKOM	3625.72	76.25	0.00	251.00	224.00	1.71	2.72	0.00	0.00
8	BOSSIER	3573.63	70.00	0.00	186.50	146.00	1.88	2.40	0.00	0.00
15	COLUMBUS	3459.02	51.25	0.00	237.25	181.25	1.83	3.18	0.00	0.00
3	BRAGG	3396.51	68.75	0.00	165.25	140.00	1.11	2.66	0.00	0.00
12	FORREST	3250.65	72.50	0.00	117.75	201.25	1.23	3.42	0.00	0.00
10	CLARK 63	3052.69	63.75	0.00	185.00	155.00	1.98	2.86	0.00	0.00
1	CALLAND	2979.76	57.50	0.00	122.25	173.50	1.80	3.65	0.00	0.00
9	WILLIAMS	2938.09	58.75	0.00	178.25	157.75	1.71	2.69	0.00	0.00
7	CUTLER 71	2896.41	50.00	0.00	149.50	137.75	1.63	3.25	0.00	0.00
5	HILL	2865.16	70.00	0.00	112.00	160.00	0.96	1.73	0.00	0.00
2	WOODWORTH	2510.92	47.50	0.00	154.25	104.00	1.33	1.94	0.00	0.00
14	BEESON	2073.33	48.75	0.00	110.00	127.25	1.55	2.08	0.00	0.00
13	WELLS	1812.86	60.00	0.00	103.00	136.50	1.31	1.96	0.00	0.00
	GRAND MEAN	3111.30	62.86	0.00	161.89	157.56	1.49	2.67	0.00	0.00
	STANDARD ERROR OF A VARIETY MEAN	155.23	6.20	0.00	31.01	34.99	0.33	0.58	0.00	0.00
	COEFFICIENT OF VARIATION	9.98%	19.72%	0.00%	38.31%	44.41%	44.29%	43.18%	0.00%	0.00%
	5% LSD VARIETY MEANS (*****=NS)	442.16	17.66	0.00	88.32	*****	*****	*****	0.00	0.00

(+ - PROB=.05 ++ - PROB=.01)

C O R R E L A T I O N S

YIELD	KG/HA	1.00	0.39++	0.00	0.34++	0.14	0.03	0.19	0.00
DAYS TO FLOWER	0.39++	1.00	1.00	0.00	-0.02	0.05	-0.22	-0.12	0.00
DAYS TO MATURITY	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	0.34++	0.34++	0.00	0.00	1.00	0.36++	0.66++	0.31+	0.00
NODULE NUMBER 2	0.14	0.05	0.00	0.00	0.36++	1.00	0.43++	0.62++	0.00
NODULE WEIGHT 1	0.03	0.03	0.00	0.00	0.66++	0.43++	1.00	0.56++	0.00
NODULE WEIGHT 2	0.19	0.00	0.00	0.00	0.31+	0.62++	0.56++	1.00	0.00
NODULE HEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	-0.42++	-0.26+	0.00	0.00	-0.32+	0.01	0.00	0.10	0.00

TABLE 87 EXPERIMENT 144 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	0.00	0.00	0.00	0.00	2.25
6	PICKETT 71	0.00	0.00	0.00	0.00	1.75
11	DAVIS	0.00	0.00	0.00	0.00	3.00
16	WELKOM	0.00	0.00	0.00	0.00	2.75
8	BOSSIER	0.00	0.00	0.00	0.00	1.00
15	COLUMBUS	0.00	0.00	0.00	0.00	2.50
3	BRAGG	0.00	0.00	0.00	0.00	1.50
12	FORREST	0.00	0.00	0.00	0.00	4.25
10	CLARK 63	0.00	0.00	0.00	0.00	1.75
1	CALLAND	0.00	0.00	0.00	0.00	4.00
9	WILLIAMS	0.00	0.00	0.00	0.00	2.50
7	CUTLER 71	0.00	0.00	0.00	0.00	3.50
5	HILL	0.00	0.00	0.00	0.00	1.75
2	WOODWORTH	0.00	0.00	0.00	0.00	1.75
14	BEESON	0.00	0.00	0.00	0.00	4.50
13	WELLS	0.00	0.30	0.00	0.00	4.50
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	0.00	0.00	0.00	2.70
COEFFICIENT OF VARIATION		0.00%	0.30	0.00	0.00	0.25
5% LST VARIETY MEANS (*****=NS)		0.00	0.00%	0.00%	0.00%	18.87%
		0.00	0.00	0.00	0.00	0.73
C O R R E L A T I O N S						
		(+ - PROB=.05			+ + - PROB=.01)	
YIELD	KG/HA	0.30	0.00	0.00	0.00	-0.42++
DAYS TO FLOWER		0.00	0.00	0.00	0.00	-0.26+
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	-0.32+
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.01
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.10
PLANT	HEIGHT	0.00	0.00	0.00	0.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	0.00	0.00	0.00
PODS PER	PLANT	0.00	0.00	1.00	0.00	0.00
100 SEED	WEIGHT	0.00	0.00	0.00	1.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 88 EXPERIMENT 146 YEAR 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	DAVIS	2990.60	79.75	156.00	71.25	117.00	1.30	1.66	66.00	1.25
8	BOSSIER	2558.43	88.00	169.00	56.25	201.25	0.92	2.07	48.40	1.00
5	HILL	2270.45	85.75	165.00	47.50	126.25	0.35	1.06	61.68	1.00
16	WELKOM	2257.95	94.00	169.00	68.25	143.50	1.34	1.80	93.65	2.75
3	BRAGG	2245.03	87.75	169.00	53.00	161.50	0.35	1.65	45.75	1.00
15	COLUMBUS	2210.86	59.25	126.50	100.50	176.25	1.15	3.19	65.90	1.00
12	PORREST	2150.85	86.75	169.00	56.50	135.50	0.43	1.53	63.85	1.00
6	PICKETT 71	1892.88	81.50	169.00	28.00	57.25	0.20	0.64	29.25	1.00
14	WOODWORTH	1649.50	51.00	111.75	65.50	103.25	1.10	1.87	37.65	1.00
2	BEESON	1630.74	58.75	110.00	27.25	110.75	0.49	1.50	30.75	1.00
13	WELLS	1574.90	61.75	110.00	31.50	79.00	0.42	0.89	28.50	1.00
4	RANSON	1293.59	82.00	169.00	75.00	100.25	0.93	1.03	37.10	1.00
10	CLARK 63	1231.91	56.50	117.00	57.25	108.75	0.75	2.32	41.15	1.00
7	CUTLER 71	1170.23	61.75	117.00	70.75	137.50	1.22	2.25	46.68	1.00
9	WILLIAMS	1076.05	59.50	120.75	96.00	117.25	1.18	1.89	43.95	1.00
1	CALLAND	869.34	60.75	124.50	70.50	139.75	1.14	2.35	44.70	1.00
	GRAND MEAN	1817.08	72.17	142.03	60.94	125.94	0.83	1.73	49.06	1.13
	STANDARD ERROR OF A VARIETY MEAN	290.67	2.98	3.80	12.92	27.94	0.24	0.41	3.06	0.17
	COEFFICIENT OF VARIATION	31.99%	8.25%	5.35%	42.40%	44.37%	57.95%	47.67%	12.46%	29.63%
	5% LSD VARIETY MEANS (*****=NS)	827.94	8.48	10.82	36.80	*****	0.69	1.17	8.71	0.47

(+ - PROB=0.05 ++ - PROB=0.01)

C O R R E L A T I O N S

YIELD	KG/HA	1.00	0.45++	0.43++	-0.10	0.15	0.01	-0.00	0.36++	0.19
DAYS TO FLOWER	1.00	0.45++	1.00	0.91++	-0.16	0.19	-0.20	-0.20	0.49++	0.34++
DAYS TO MATURITY	0.43++	1.00	0.91++	1.00	-0.08	0.12	-0.11	-0.22	0.45++	0.25+
NODULE NUMBER 1	-0.10	-0.16	-0.08	1.00	0.13	0.60++	0.60++	0.27+	0.23	0.07
NODULE NUMBER 2	0.15	0.19	0.12	0.13	1.00	0.73++	-0.00	0.73++	0.24	0.03
NODULE WEIGHT 1	0.01	-0.20	-0.11	0.60++	0.27+	-0.00	1.00	0.20	0.25+	0.17
NODULE WEIGHT 2	-0.00	-0.24	-0.22	0.27+	0.23	0.24	0.25+	1.00	0.20	0.01
PLANT HEIGHT	0.36++	0.49++	0.45++	0.23	0.24	0.03	0.17	0.01	0.60++	1.00
LODGING	0.19	0.34++	0.25+	0.07	0.03	-0.04	0.10	0.19	-0.27+	-0.17
SHATTER	-0.31+	-0.55++	-0.67++	-0.02	-0.28+	-0.17	-0.13	-0.13	-0.37++	-0.38++
HARVEST	-0.08	-0.49++	-0.50++	-0.15	-0.28+	0.21	0.13	0.13	0.40++	0.13
PODS PER PLANT	0.03	-0.00	-0.01	0.29+	0.13	0.07	0.26+	0.14	0.28+	0.37++
100 SEED WEIGHT	0.26+	0.18	0.20	0.29+	0.15	0.00	0.08	0.08	-0.24	-0.17
QUALITY OF SEED	-0.52++	-0.27+	-0.25+	0.15	0.00					

TABLE 88 EXPERIMENT 146 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	DAVIS	2.00	229.00	22.75	23.30	3.00	41.8	22.2
8	BOSSIER	1.25	150.25	16.53	23.06	3.50	44.6	20.2
5	HILL	1.00	201.50	53.63	20.51	4.00	43.6	19.4
16	WEIKOM	1.50	107.75	31.88	23.71	3.25	44.0	19.4
3	BRAGG	1.00	187.00	13.90	24.43	3.25	43.0	20.0
15	COLUMBUS	1.00	193.00	26.13	20.76	3.00	44.7	19.1
12	PORREST	1.00	178.75	15.80	20.87	2.75	41.8	19.8
6	PICKETT 71	1.00	175.00	14.38	19.33	3.50	42.0	21.7
2	WOODWORTH	2.00	228.50	23.80	21.70	2.25	39.6	21.8
14	BEESON	2.00	227.75	18.90	22.20	3.25	44.3	20.7
13	WELLS	2.00	260.00	15.58	18.63	3.75	44.0	21.5
4	RANSOM	1.00	161.75	12.58	20.61	4.25	40.5	24.2
10	CLARK 63	3.00	240.00	25.40	21.41	5.00	45.2	22.2
7	CUTLER 71	2.25	188.00	28.35	20.26	4.50	45.2	20.5
9	WILLIAMS	2.50	183.50	20.50	21.83	4.75	45.9	20.6
1	CALLAND	2.00	218.25	28.60	21.87	5.00	44.8	19.6
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.66	195.63	23.04	21.53	3.69		
COEFFICIENT OF VARIATION		0.25	14.08	3.81	1.33	0.32		
5% LSD VARIETY MEANS (*****NS)		30.77%	14.40%	33.10%	12.36%	17.45%		
		0.73	40.11	10.86	*****	0.92		
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)								
YIELD KG/HA		-0.31+	-0.08	0.03	0.26+	-0.52++		
DAYS TO FLOWER		-0.55++	-0.49++	-0.00	0.18	-0.27+		
DAYS TO MATURITY		-0.67++	-0.50++	-0.01	0.20	-0.25+		
NODULE NUMBER 1		-0.02	-0.15	0.18	0.29+	0.15		
NODULE NUMBER 2		-0.04	-0.28+	0.07	0.13	0.00		
NODULE WEIGHT 1		0.10	-0.17	0.21	0.26+	0.08		
NODULE WEIGHT 2		0.19	-0.13	0.13	0.14	0.08		
PLANT HEIGHT		-0.27+	-0.37++	0.40++	0.28+	-0.24		
LODGING		-0.17	-0.38++	0.13	0.37++	-0.17		
SHATTER		1.00	0.26+	0.02	-0.17	0.38++		
PLANTS HARVEST		0.26+	1.00	0.03	-0.03	-0.03		
PODS PER PLANT		0.02	0.03	1.00	-0.03	0.15		
100 SEED WEIGHT		-0.17	-0.03	-0.03	1.00	-0.19		
QUALITY OF SEED		0.38++	-0.03	0.15	-0.19	1.00		

TABLE 89

EXPERIMENT 145

YEAR 1976

REGION - AFRICA
 SITE - MANGONGO
 LATITUDE - 26 DEG. 35 MIN. S
 COOPERATOR - J. CUMBERLAND
 DATE PLANTED - NOVEMBER 4, 1976
 SOIL TYPE - SAND 51%, SILT 17%, CLAY 32%
 FERTILIZER USED (KG/HA) - P 40.0, K 60.0
 AMOUNT OF MOISTURE - 831 MM
 LOCAL VARIETY - WELKOM

COUNTRY - SWAZILAND
 ELEVATION - 1500 M
 LONGITUDE - 30 DEG. 50 MIN. E
 DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
3	BRAGG	2277.54	79.50	194.00	38.25	76.75	0.25	1.71	94.77	1.75
12	FORREST	2207.94	78.00	194.00	12.25	49.75	0.04	0.70	90.40	2.50
11	DAVIS	2130.43	84.25	194.00	37.25	162.75	0.70	6.32	90.87	2.00
1	CALLAND	1877.88	66.75	151.00	53.00	74.00	1.03	3.00	57.30	1.00
4	RANSOM	1872.87	78.50	194.00	80.25	134.75	0.91	2.56	80.90	1.75
13	WELLS	1804.53	65.75	111.00	35.25	87.75	0.49	2.09	46.55	1.00
16	WELKOM	1769.10	83.00	194.00	26.00	77.00	0.05	3.37	91.97	1.50
15	COLUMBUS	1733.68	74.00	151.00	33.00	117.25	0.83	4.47	64.50	2.00
14	BEESON	1687.84	69.25	131.00	21.25	26.75	0.14	0.67	53.75	1.00
2	WOODWORTH	1667.00	65.25	111.00	44.75	66.25	0.65	1.78	52.13	1.00
9	WILLIAMS	1571.98	67.25	131.00	11.25	30.75	0.19	0.62	56.75	1.00
8	BOSSIER	1488.21	78.75	194.00	5.75	31.00	0.02	0.74	92.82	1.75
10	CLARK 63	1453.62	68.25	151.00	20.00	40.75	0.27	1.00	68.85	1.00
7	CUTLER 71	1441.95	70.25	151.00	35.75	42.25	0.71	1.16	62.25	1.00
5	HILL	1378.19	88.00	161.75	22.25	41.25	0.15	0.48	93.02	1.75
6	PICKETT 71	1128.14	82.25	194.00	11.75	21.25	0.08	0.35	70.55	1.50
	GRAND MEAN	1718.18	74.94	162.98	30.50	67.52	0.41	1.94	72.96	1.47
	STANDARD ERROR OF A VARIETY MEAN	277.11	1.63	4.65	12.45	20.41	0.19	0.62	3.55	0.36
	COEFFICIENT OF VARIATION	32.26%	4.36%	5.70%	81.63%	60.46%	92.65%	64.25%	9.72%	49.00%
	5% 1ST VARIETY MEANS (*****=NS)	*****	4.65	13.23	35.46	58.14	0.54	1.77	10.10	*****

C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER	0.07	0.14	0.29+							
DAYS TO MATURITY	0.07	0.73++	-0.06	0.41++						
NODULE NUMBER 1	0.14	1.00	-0.00	0.14	0.20					
NODULE NUMBER 2	0.29+	-0.06	1.00	0.16	-0.24	0.33++				
NODULE WEIGHT 1	0.41++	-0.06	0.16	0.40++	0.86++	0.14	0.75++			
NODULE WEIGHT 2	0.20	-0.24	0.15	0.40++	0.42++	0.15	0.80++			
PLANT HEIGHT	0.33++	0.14	0.32++	0.88++	1.00	0.88++	0.13	0.09		
LODGING	0.18	0.75++	-0.04	0.13	-0.21	0.11	0.43++			
SHATTER	0.25+	0.40++	-0.02	0.09	0.00	0.01	0.35++			
HARVEST	0.30+	0.43++	0.09	0.24	0.04	0.15	0.33++			
PODS PER PLANT	0.12	-0.36++	-0.13	0.16	0.17	0.10	0.17			
100 SEED WEIGHT	0.32++	0.62++	-0.12	0.07	-0.26+	0.09	0.60++			
QUALITY OF SEED	0.51++	-0.24	0.28+	0.26+	0.32++	0.26+	-0.22			
	-0.20	-0.16	-0.03	-0.13	0.11	-0.09	-0.13			

TABLE 89 EXPERIMENT 145 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
3	BRAGG	2.25	158.75	25.08	19.12	1.00	37.7	19.1
12	FORREST	2.75	165.25	28.93	16.55	1.75	37.1	20.1
11	DAVIS	1.75	195.25	32.23	17.24	1.00	37.6	20.1
1	CALLAND	1.25	178.50	11.13	22.00	3.75	39.2	22.3
4	RANSOM	1.75	188.75	23.38	19.26	2.00	30.2	23.5
13	WELLS	1.00	203.50	15.55	17.04	2.00	39.5	21.2
16	WELKOM	1.75	85.50	36.58	17.18	1.00	40.6	18.5
15	COLUMBUS	1.50	167.25	19.30	19.49	3.50	41.3	23.9
14	BEESON	1.00	242.25	21.18	18.61	2.25	36.2	23.0
2	WOODWORTH	1.00	166.25	15.80	16.22	1.00	37.9	22.2
9	WILLIAMS	1.00	194.00	10.65	18.90	2.25	32.8	24.3
8	BOSSIER	2.00	78.50	42.45	16.30	1.50	40.7	18.7
10	CLARK 63	1.00	194.00	12.20	16.75	3.50	41.7	22.3
7	CUTLER 71	1.25	114.50	11.10	19.34	2.50	39.3	22.1
5	HILL	1.00	150.75	22.60	14.90	4.00	37.8	19.0
6	PICKETT 71	2.00	100.25	31.13	15.12	1.25	35.0	20.6
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.52	161.45	22.45	17.75	2.14		
COEFFICIENT OF VARIATION		0.47	16.49	3.36	1.07	0.45		
5% 1ST VARIETY MEANS (*****=NS)		61.68%	20.42%	29.95%	12.10%	42.40%		
		*****	46.96	9.58	3.06	1.29		
C O R R E L A T I O N S								
				(+ - PROB=.05		++ - PROB=.01)		
YIELD	KG/HA	0.30+	0.12	0.32++	0.51++	-0.20		
DAYS TO	FLOWER	0.31+	-0.36++	0.62++	-0.24	-0.16		
DAYS TO	MATURITY	0.43++	-0.49++	0.61++	-0.03	-0.25+		
NODULE	NUMBER 1	0.09	0.13	-0.12	0.28+	-0.03		
NODULE	NUMBER 2	0.24	0.16	0.07	0.26+	-0.13		
NODULE	WEIGHT 1	0.04	0.17	-0.26+	0.32+	0.11		
NODULE	WEIGHT 2	0.15	0.10	0.09	0.26+	-0.09		
PLANT	HEIGHT	0.35++	-0.33++	0.60++	-0.22	-0.22		
LODGING		0.39++	-0.17	0.46++	0.03	-0.13		
SHATTER		1.00	-0.18	0.41++	0.11	-0.16		
PLANTS	HARVEST	-0.18	1.00	-0.45++	0.02	0.17		
PODS PER	PLANT	0.41++	-0.45++	1.00	-0.09	-0.40++		
100 SEED	WEIGHT	0.11	0.02	-0.09	1.00	0.21		
QUALITY	OF SEED	-0.16	0.17	-0.40++	0.21	1.00		

TABLE 90 EXPERIMENT 994 YEAR 1976

REGION - AFRICA
SITE - ILONGA
LATITUDE - 6 DEG. 46 MIN. S
COOPERATOR - M.E.T. MMBAGA
LOCAL VARIETIES - L4, 1H/192

COUNTRY - TANZANIA
ELEVATION - 503 M

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
10	BOSSIER	2311.09	35.25	80.75	0.00	0.00	0.00	0.00	57.83	0.00
17	L4	2278.28	35.75	81.25	0.00	0.00	0.00	0.00	62.15	0.00
13	COBB	2241.83	27.00	80.50	0.00	0.00	0.00	0.00	32.55	0.00
12	CLARK 63	2214.75	33.25	81.75	0.00	0.00	0.00	0.00	44.08	0.00
11	WILLIAMS	2163.20	27.50	76.00	0.00	0.00	0.00	0.00	51.83	0.00
7	TGX 13-3-2644	2026.24	38.00	89.50	0.00	0.00	0.00	0.00	61.40	0.00
16	FORREST	1930.42	28.00	77.00	0.00	0.00	0.00	0.00	35.85	0.00
1	TGM 220-1-2205	1913.76	37.25	85.25	0.00	0.00	0.00	0.00	42.33	0.00
8	TGM 256-1-B	1759.09	36.50	79.75	0.00	0.00	0.00	0.00	58.63	0.00
14	DAVIS	1730.97	28.25	78.00	0.00	0.00	0.00	0.00	27.68	0.00
4	TGM 249-4-B	1707.54	33.50	86.75	0.00	0.00	0.00	0.00	68.27	0.00
5	TGM 294-4-2371	1578.91	39.75	86.75	0.00	0.00	0.00	0.00	73.95	0.00
6	TGX 66-5100	1467.47	37.00	82.25	0.00	0.00	0.00	0.00	75.68	0.00
3	TGM 255-2-4341	1462.27	35.75	86.50	0.00	0.00	0.00	0.00	66.07	0.00
15	IMPROVED PELICAN	1378.95	34.00	81.75	0.00	0.00	0.00	0.00	73.52	0.00
2	TGM 210-1-2363	1356.55	36.25	83.50	0.00	0.00	0.00	0.00	53.00	0.00
9	JUPITER	1054.00	40.50	91.75	0.00	0.00	0.00	0.00	72.45	0.00
18	1H/192	657.71	48.00	108.25	0.00	0.00	0.00	0.00	98.22	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1735.17	35.08	84.29	0.00	0.00	0.00	0.00	58.64	0.00
COEFFICIENT OF VARIATION		167.39	0.35	0.97	0.00	0.00	0.00	0.00	2.42	0.00
5% LSD VARIETY MEANS (*****=NS)		475.27	1.00	2.76	0.00	0.00	0.00	0.00	8.24%	0.00
C O R R E L A T I O N S										
YIELD KG/HA		1.00	-0.50++	-0.46++	0.00	0.00	0.00	0.00	-0.45++	0.00
DAYS TO FLOWER		-0.50++	1.00	0.83++	0.00	0.00	0.00	0.00	0.78++	0.00
DAYS TO MATURITY		-0.46++	0.83++	1.00	0.00	0.00	0.00	0.00	0.70++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		-0.45++	0.78++	0.70++	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.28+	0.02	-0.06	0.00	0.00	0.00	0.00	0.13	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 90 EXPERIMENT 994 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
10	BOSSIER	0.00	186.50	0.00	0.00	0.00
17	L4	0.00	179.50	0.00	0.00	0.00
13	COBB	0.00	126.50	0.00	0.00	0.00
12	CLARK 63	0.00	169.50	0.00	0.00	0.00
11	WILLIAMS	0.00	178.75	0.00	0.00	0.00
7	TGX 13-3-2644	0.00	178.50	0.00	0.00	0.00
16	FORREST	0.00	101.00	0.00	0.00	0.00
1	TGM 220-1-2205	0.00	57.25	0.00	0.00	0.00
8	TGM 256-1-B	0.00	99.50	0.00	0.00	0.00
14	DAVIS	0.00	102.00	0.00	0.00	0.00
4	TGM 249-4-B	0.00	35.25	0.00	0.00	0.00
5	TGM 294-4-2371	0.00	188.25	0.00	0.00	0.00
6	TGX 66-5100	0.00	133.25	0.00	0.00	0.00
3	TGM 255-2-4341	0.00	179.50	0.00	0.00	0.00
15	IMPROVED PELICAN	0.00	150.50	0.00	0.00	0.00
2	TGM 210-1-2363	0.00	98.50	0.00	0.00	0.00
9	JUPITER	0.00	175.25	0.00	0.00	0.00
18	1H/192	0.00	85.00	0.00	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	134.69	0.00	0.00	0.00
COEFFICIENT OF VARIATION		0.00	20.61	0.00	0.00	0.00
5% LSD VARIETY MEANS (*****NS)		0.00	30.60%	0.00%	0.00%	0.00%
		0.00	58.50	0.00	0.00	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD KG/HA		0.00	0.28+	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.02	0.00	0.00	0.00
DAYS TO MATURITY		0.00	-0.06	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.13	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 91 EXPERIMENT 274 YEAR 1976

REGION - AFRICA
 SITE - ZANZIBAR
 LATITUDE - 6 DEG. S
 COOPERATOR - A.J. CARPENTER
 DATE PLANTED - JUNE 20, 1976
 SOIL PH 6.4
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 200 MM

COUNTRY - TANZANIA
 ELEVATION - 30 M
 LONGITUDE - 38 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	DAVIS	859.24	0.00	0.00	0.00	0.00	0.00	0.00	31.25	1.00
11	WILLIAMS	848.82	0.00	0.00	0.00	0.00	0.00	0.00	23.75	1.00
13	COBB	671.77	0.00	0.00	0.00	0.00	0.00	0.00	27.50	1.00
5	TGM 294-4-2371	640.52	0.00	0.00	0.00	0.00	0.00	0.00	50.00	1.00
10	BOSSIER	630.11	0.00	0.00	0.00	0.00	0.00	0.00	23.75	1.00
2	TGM 210-1-2363	583.24	0.00	0.00	0.00	0.00	0.00	0.00	35.00	1.00
12	CLARK 63	567.62	0.00	0.00	0.00	0.00	0.00	0.00	25.00	1.00
6	TGX 66-5100	557.20	0.00	0.00	0.00	0.00	0.00	0.00	38.75	1.00
16	FORREST	515.54	0.00	0.00	0.00	0.00	0.00	0.00	26.25	1.00
9	JUPITER	494.71	0.00	0.00	0.00	0.00	0.00	0.00	58.75	1.00
15	IMPROVED PELICAN	473.88	0.00	0.00	0.00	0.00	0.00	0.00	33.75	1.00
4	TGM 249-4-B	463.47	0.00	0.00	0.00	0.00	0.00	0.00	35.00	1.00
3	TGM 255-2-4341	453.05	0.00	0.00	0.00	0.00	0.00	0.00	31.25	1.00
1	TGM 220-1-2205	416.60	0.00	0.00	0.00	0.00	0.00	0.00	31.25	1.00
8	TGM 256-1-B	395.77	0.00	0.00	0.00	0.00	0.00	0.00	37.50	1.00
7	TGX 13-3-2644	256.73	0.00	0.00	0.00	0.00	0.00	0.00	40.00	1.00
GRAND MEAN		551.77	0.00	0.00	0.00	0.00	0.00	0.00	34.30	1.00
STANDARD ERROR OF A VARIETY MEAN		116.37	0.00	0.00	0.00	0.00	0.00	0.00	3.62	0.00
COEFFICIENT OF VARIATION		42.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.14%	0.00%
5% LSD VARIETY MEANS (*****=NS)		*****	0.00	0.00	0.00	0.00	0.00	0.00	10.32	0.00
CORRELATIONS										
YIELD KG/HA			(+ - PROB=.05 ** - PROB=.01)							
DAYS TO FLOWER	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 91 EXPERIMENT 274 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	DAVIS	1.00	0.00	0.00	0.00	0.00
11	WILLIAMS	1.00	0.00	0.00	0.00	0.00
13	COBB	1.00	0.00	0.00	0.00	0.00
5	TGM 294-4-2371	1.00	0.00	0.00	0.00	0.00
10	BOSSIER	1.00	0.00	0.00	0.00	0.00
2	TGM 210-1-2363	1.00	0.00	0.00	0.00	0.00
12	CLARK 63	1.00	0.00	0.00	0.00	0.00
6	TGX 66-5100	1.00	0.00	0.00	0.00	0.00
16	FORREST	1.00	0.00	0.00	0.00	0.00
9	JUPITER	1.00	0.00	0.00	0.00	0.00
15	IMPROVED PELICAN	1.00	0.00	0.00	0.00	0.00
4	TGM 249-4-B	1.00	0.00	0.00	0.00	0.00
3	TGM 255-2-4341	1.00	0.00	0.00	0.00	0.00
1	TGM 220-1-2205	1.00	0.00	0.00	0.00	0.00
8	TGM 256-1-B	1.00	0.00	0.00	0.00	0.00
7	TGX 13-3-2644	1.00	0.00	0.00	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	0.00	0.00	0.00	0.00
COEFFICIENT OF VARIATION		0.00%	0.00	0.00	0.00%	0.00
5% 1ST VARIETY MEANS (*****NS)		0.00	0.00	0.00	0.00	0.00%
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 92 EXPERIMENT 222 YEAR 1976

REGION - AFRICA COUNTRY - TOGO
 SITE - AMOUTCHOU ELEVATION - 160 M
 LATITUDE - 7 DEG. 21 MIN. N LONGITUDE - 1 DEG. 10 MIN. E
 COOPERATOR - I.R.A.T.-TOGO
 DATE PLANTED - MAY 13, 1976 DATE HARVESTED - AUGUST, 1976
 FERTILIZER USED (KG/HA) - P 20.0, K 20.0
 AMOUNT OF MOISTURE - 379 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
5	DAVIS	1750.35	25.00	76.00	73.75	189.25	0.00	0.00	18.75	1.00
2	WILLIAMS	1125.22	23.00	69.00	98.00	211.25	0.00	0.00	25.75	1.00
4	COBB	958.52	23.00	74.00	63.00	269.00	0.00	0.00	18.25	1.00
3	CLARK 63	937.69	23.00	63.00	81.50	181.00	0.00	0.00	31.25	1.00
6	IMPROVED PELICAN	666.80	24.00	80.00	51.00	140.25	0.00	0.00	34.00	1.00
1	BOSSIER	645.96	23.00	69.00	57.00	199.00	0.00	0.00	16.00	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.50+	0.09	0.13	0.10	0.00	0.00	0.11	0.00
DAYS TO FLOWER	0.50+	1.00	0.65++	0.09	-0.11	-0.27	0.00	0.00	-0.01	0.00
DAYS TO MATURITY	0.09	0.65++	1.00	1.00	-0.34	-0.12	0.00	0.00	0.00	0.00
NODULE NUMBER 1	0.13	0.13	-0.11	-0.34	1.00	0.17	0.00	0.00	-0.06	0.00
NODULE NUMBER 2	0.10	0.10	-0.27	-0.12	0.17	1.00	0.00	0.00	-0.53++	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	0.11	0.11	-0.01	0.00	-0.06	-0.53++	0.00	0.00	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.61++	0.61++	0.49+	0.10	0.41+	0.07	0.00	0.00	0.20	0.00
PODS PER PLANT	0.37	0.37	0.05	0.03	-0.31	-0.08	0.00	0.00	0.34	0.00
100 SEED WEIGHT	0.54++	0.54++	0.11	-0.34	0.17	0.12	0.00	0.00	-0.10	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 92 EXPERIMENT 222 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
5	DAVIS	1.00	233.50	13.45	18.28	0.00	43.1	24.5
2	WILLIAMS	1.00	217.25	9.72	18.05	0.00	43.0	23.5
4	COBB	1.00	144.25	14.93	15.85	0.00	40.2	24.0
3	CLARK 63	1.00	188.00	14.48	17.25	0.00	41.3	25.2
6	IMPROVED PELICAN	1.00	175.75	12.95	15.14	0.00	43.6	24.0
1	BOSSIER	1.00	97.25	12.75	17.25	0.00	45.6	22.7
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	176.00	13.05	16.97	0.00		
COEFFICIENT OF VARIATION		0.00%	12.35	1.28	0.64	0.00		
5% LSD VARIETY MEANS (*****=NS)		0.00	14.04%	19.70%	7.49%	0.00%		
		0.00	37.24	*****	1.92	0.00		
C O R R E L A T I O N S (+ - PROB=-.05 ++ - PROB=-.01)								
YIELD KG/HA								
DAYS TO FLOWER		0.00	0.61++	0.37	0.54++	0.00		
DAYS TO MATURITY		0.00	0.49+	0.05	0.11	0.00		
NODULE NUMBER 1		0.00	0.10	0.03	-0.34	0.00		
NODULE NUMBER 2		0.00	0.41+	-0.31	0.17	0.00		
NODULE WEIGHT 1		0.00	0.07	-0.08	0.12	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00		
LODGING		0.00	0.20	0.34	-0.10	0.00		
SHATTER		0.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		1.00	0.00	0.00	0.00	0.00		
PODS PER PLANT		0.00	1.00	-0.19	0.29	0.00		
100 SEED WEIGHT		0.00	-0.19	1.00	-0.02	0.00		
QUALITY OF SEED		0.00	0.29	-0.02	1.00	0.00		
		0.00	0.00	0.00	0.00	1.00		

TABLE 93 EXPERIMENT 238 YEAR 1976

REGION - AFRICA COUNTRY - TOGO
 SITE - BARKOISSI ELEVATION - 163 M
 LATITUDE - 10 DEG. 32 MIN. N LONGITUDE - 0 DEG. 18 MIN. E
 COOPERATOR - I.R.A.T.-TOGO
 DATE PLANTED - JULY 17, 1976 DATE HARVESTED - NOVEMBER, 1976
 FERTILIZER USED (KG/HA) - P 20.0, K 20.0
 AMOUNT OF MOISTURE - 502 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	DAVIS	2125.42	22.00	94.00	251.25	585.00	0.00	0.00	35.15	1.00
8	TGM 256-1-B	1729.51	26.25	94.00	409.25	494.50	0.00	0.00	60.10	1.00
9	JUPITER	1521.14	33.00	107.00	364.75	438.00	0.00	0.00	70.25	3.00
2	TGM 210-1-2363	1521.14	32.00	94.00	319.75	696.00	0.00	0.00	53.80	2.00
11	WILLIAMS	1500.30	19.50	107.00	270.50	437.25	0.00	0.00	49.88	2.00
16	FORREST	1458.62	27.00	94.00	290.75	494.25	0.00	0.00	44.65	3.00
4	TGM 249-4-B	1458.62	29.00	93.00	355.00	725.75	0.00	0.00	74.30	3.00
15	IMPROVED PELICAN	1450.29	34.00	94.00	291.25	340.50	0.00	0.00	89.70	1.00
13	COBB	1437.79	33.00	107.00	340.75	570.25	0.00	0.00	54.05	1.00
5	TGM 294-4-2371	1437.79	32.00	103.00	238.25	469.00	0.00	0.00	72.50	3.00
7	TGX 13-3-2644	1312.76	32.00	94.00	305.25	499.00	0.00	0.00	70.25	2.00
10	BOSSIER	1291.92	21.00	94.00	330.50	596.75	0.00	0.00	30.10	1.00
6	TGX 66-5100	1291.92	9.25	94.00	258.50	532.50	0.00	0.00	78.45	1.00
3	TGM 255-2-4341	1146.06	31.00	94.00	355.00	651.50	0.00	0.00	66.60	1.00
12	CLARK 63	979.36	23.25	93.75	273.75	421.00	0.00	0.00	46.20	3.00
1	TGM 220-1-2205	625.12	45.75	107.00	383.50	583.00	0.00	0.00	40.45	3.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
(+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.14	1.00							
DAYS TO MATURITY		-0.07	0.35++	1.00						
NODULE NUMBER 1		-0.05	0.19	-0.07	1.00					
NODULE NUMBER 2		0.08	0.05	-0.00	0.34++	1.00				
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00			
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00		
PLANT HEIGHT		0.22	0.07	-0.05	0.03	-0.15	0.00	0.00	1.00	
LODGING		-0.19	0.33++	0.24	-0.01	0.04	0.00	0.00	-0.03	1.00
SHATTER		-0.17	0.25+	0.51++	0.30+	0.06	0.00	0.00	0.09	0.16
HARVEST		0.37++	-0.43++	-0.34++	-0.20	-0.25	0.00	0.00	-0.03	-0.39++
PODS PER PLANT		-0.17	0.31+	0.03	0.36++	0.20	0.00	0.00	0.19	-0.01
100 SEED WEIGHT		0.09	-0.07	0.47++	0.01	-0.10	0.00	0.00	-0.03	0.38++
QUALITY OF SEED		-0.05	-0.21	-0.02	-0.05	-0.14	0.00	0.00	-0.13	0.32++

TABLE 93 EXPERIMENT 238 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	DAVIS	1.00	214.75	50.00	21.00	3.00	45.3	23.8
8	TGM 256-1-B	2.00	155.00	47.50	16.00	5.00	49.0	20.6
9	JUPITER	3.00	131.00	69.25	42.00	3.00	44.9	24.7
2	TGM 210-1-2363	1.00	169.25	49.50	21.00	3.00	47.4	21.9
11	WILLIAMS	2.00	209.50	20.25	39.00	5.00	45.3	24.1
16	FORREST	1.00	159.25	41.00	18.00	5.00	44.7	23.3
4	TGM 249-4-B	2.00	66.50	80.25	26.00	3.00	43.5	25.3
15	IMPROVED PELICAN	1.00	218.25	113.75	15.75	2.00	47.2	23.6
13	COBB	2.00	151.25	40.00	22.00	2.00	41.5	25.3
5	TGM 294-4-2371	1.00	28.75	35.25	19.00	4.00	49.3	20.2
7	TGX 13-3-2644	1.00	183.25	49.25	19.00	5.00	45.0	23.9
10	BOSSIER	1.00	152.75	28.75	20.00	3.00	48.9	22.8
6	TGX 66-5100	2.00	193.25	53.00	17.00	4.00	47.8	19.3
3	TGM 255-2-4341	2.00	118.50	113.75	15.00	3.00	45.9	24.0
12	CLARK 63	1.00	215.25	23.25	23.00	4.00	45.5	24.3
1	TGM 220-1-2205	3.00	28.75	132.50	18.00	4.00	44.1	23.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.63	149.70	59.20	21.98	3.63		
COEFFICIENT OF VARIATION		0.00	24.38	20.56	0.19	0.00		
5% LSD VARIETY MEANS (*****=NS)		0.00%	32.57%	69.45%	1.71%	0.00%		
		0.00	69.44	58.56	0.53	0.00		
C O R R E L A T I O N S								
		(+ - PROB=.05			++ - PROB=.01)			
YIELD								
KG/HA								
DAYS TO FLOWER		-0.17	0.37++	-0.17	0.09	-0.05		
DAYS TO MATURITY		0.25+	-0.43++	0.31+	-0.07	-0.21		
NODULE NUMBER 1		0.51++	-0.34++	0.03	0.47++	-0.02		
NODULE NUMBER 2		0.30+	-0.20	0.36++	0.01	-0.05		
NODULE WEIGHT 1		0.06	-0.25	0.20	-0.10	-0.14		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00		
LODGING		0.09	-0.03	0.19	-0.03	-0.13		
SHATTER		0.16	-0.39++	-0.01	0.38++	0.32++		
HARVEST		1.00	-0.34++	0.29+	0.42++	-0.02		
PODS PER PLANT		-0.34++	1.00	-0.37++	0.06	0.01		
100 SEED WEIGHT		0.29+	-0.37++	1.00	-0.18	-0.23		
QUALITY OF SEED		0.42++	0.06	-0.18	1.00	0.03		
		-0.02	0.01	-0.23	0.03	1.00		

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TABLE 94 EXPERIMENT 223 YEAR 1976

REGION - AFRICA
 SITE - DAVIE
 LATITUDE - 6 DEG. 26 MIN. N
 COOPERATOR - I.R.A.T.-TOGO
 DATE PLANTED - MAY 14, 1976
 SOIL TYPE - SILTY CLAY, PH 7.5
 FERTILIZER USED (KG/HA) - P 40.0, K 30.0
 AMOUNT OF MOISTURE - 257 MM
 NUMBER OF IRRIGATIONS - 5

COUNTRY - TOGO
 ELEVATION - 95 M
 LONGITUDE - 1 DEG. 13 MIN. E
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	IMPROVED PELICAN	1625.32	31.00	91.25	165.75	265.50	0.00	0.00	0.00	0.00	65.18	1.50
3	WILLIAMS	1333.60	26.00	80.00	192.00	348.75	0.00	0.00	0.00	0.00	34.73	2.00
5	COBB	1312.76	30.00	80.00	140.25	230.25	0.00	0.00	0.00	0.00	29.21	1.25
1	JUPITER	1271.09	41.00	91.75	362.00	429.75	0.00	0.00	0.00	0.00	52.32	1.75
6	DAVIS	1229.41	31.00	80.00	235.00	408.25	0.00	0.00	0.00	0.00	23.81	2.00
8	FORREST	1229.41	29.00	80.00	191.50	333.25	0.00	0.00	0.00	0.00	32.40	1.50
2	BOSSIER	1187.74	26.00	79.50	290.00	342.50	0.00	0.00	0.00	0.00	25.38	1.25
4	CLARK 63	1166.90	26.00	79.50	208.25	299.75	0.00	0.00	0.00	0.00	29.70	1.75
GRAND MEAN		1294.53	30.00	82.75	223.09	332.25	0.00	0.00	0.00	0.00	36.59	1.63
STANDARD ERROR OF A VARIETY MEAN		124.99	0.20	0.35	35.19	37.61	0.00	0.00	0.00	0.00	2.09	0.24
COEFFICIENT OF VARIATION		19.31%	1.36%	0.84%	31.55%	22.64%	0.00%	0.00%	0.00%	0.00%	11.44%	29.27%
5% LSD VARIETY MEANS (*****=NS)		*****	0.60	1.03	103.51	110.60	0.00	0.00	0.00	0.00	6.15	*****
C O R R E L A T I O N S												
				(+ - PROB=-.05			++ - PROB=-.01)					
YIELD	KG/HA	1.00	0.11	0.35	-0.00	0.01	0.00	0.00	0.00	0.00	0.46++	-0.35+
DAYS TO FLOWER		0.11	1.00	0.76++	0.41+	0.33	0.00	0.00	0.00	0.00	0.52++	0.06
DAYS TO MATURITY		0.35	0.76++	1.00	0.29	0.14	0.00	0.00	0.00	0.00	0.90++	-0.01
NODULE NUMBER 1		-0.00	0.41+	0.29	1.00	0.67++	0.00	0.00	0.00	0.00	-0.02	-0.22
NODULE NUMBER 2		0.01	0.33	0.14	0.67++	1.00	0.00	0.00	0.00	0.00	-0.03	0.16
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.46++	0.52++	0.90++	0.02	-0.03	0.00	0.00	0.00	0.00	1.00	0.04
LODGING		-0.35+	0.06	-0.01	-0.22	0.16	0.00	0.00	0.00	0.00	0.04	1.00
SHATTER		0.16	-0.11	-0.01	-0.19	-0.06	0.00	0.00	0.00	0.00	0.06	-0.06
HARVEST		0.29	0.10	0.12	-0.29	-0.09	0.00	0.00	0.00	0.00	0.24	-0.07
PLANTS PER PLANT		0.56++	0.58++	0.73++	0.33	0.15	0.00	0.00	0.00	0.00	0.61++	-0.29
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		-0.22	0.45++	0.36+	0.49++	0.32	0.00	0.00	0.00	0.00	0.24	0.16

TABLE 94 EXPERIMENT 223 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	IMPROVED PELICAN	2.00	198.75	23.08	0.00	1.25	42.6	23.8
3	WILLIAMS	1.75	197.00	10.00	0.00	2.00	42.7	24.5
5	COBB	1.75	197.50	15.98	0.00	1.00	40.8	25.7
1	JUPITER	1.25	194.25	22.53	0.00	3.00	46.6	23.0
6	DAVIS	2.00	194.00	13.10	0.00	1.00	43.7	23.2
8	FORREST	1.25	198.25	13.60	0.00	2.00	40.3	23.4
2	BOSSIER	2.00	190.75	14.05	0.00	1.50	45.8	21.7
4	CLARK 63	1.00	188.50	10.38	0.00	2.00	44.4	23.8
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.63	194.88	15.34	0.00	1.72		
COEFFICIENT OF VARIATION		0.20	3.97	2.15	0.00	0.14		
5% LSD VARIETY MEANS (*****=NS)		25.12%	4.07%	28.08%	0.00%	16.34%		
		0.60	*****	6.33	0.00	0.41		
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER		0.16	0.29	0.56++	0.00	-0.22		
DAYS TO MATURITY		-0.11	0.10	0.58++	0.00	0.45++		
NODULE NUMBER 1		-0.01	0.12	0.73++	0.00	0.36+		
NODULE NUMBER 2		-0.19	-0.29	0.33	0.00	0.49++		
NODULE WEIGHT 1		-0.06	-0.09	0.15	0.00	0.32		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00		
LODGING		0.06	0.24	0.61++	0.00	0.24		
SHATTER		-0.06	-0.07	-0.29	0.00	0.16		
PLANTS HARVEST		1.00	0.10	-0.16	0.00	-0.54++		
PODS PER PLANT		0.10	1.00	0.26	0.00	-0.13		
100 SEED WEIGHT		-0.16	0.26	1.00	0.00	0.14		
QUALITY OF SEED		0.00	0.00	0.00	1.00	0.00		
		-0.54++	-0.13	0.14	0.00	1.00		

TABLE 95 EXPERIMENT 221 YEAR 1976

REGION - AFRICA COUNTRY - TOGO
 SITE - KITANGBAO ELEVATION - 340 M
 LATITUDE - 9 DEG. 16 MIN. N LONGITUDE - 0 DEG. 43 MIN. E
 COOPERATOR - I.R.A.T.-TOGO
 DATE PLANTED - JULY 14, 1976
 FERTILIZER USED (KG/HA) - P 30.0, K 30.0
 AMOUNT OF MOISTURE - 817 MM
 SUBSTITUTION VARIETY - HARDEE

DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	TGM 249-4-B	3646.56	32.75	95.75	191.50	388.75	0.00	0.00	68.25	4.00
7	TGX 13-3-2644	3417.35	37.50	106.00	222.75	485.50	0.00	0.00	73.00	4.00
16	HARDEE	3396.51	33.50	95.50	248.25	516.75	0.00	0.00	37.00	0.25
2	TGM 210-1-2363	3354.84	36.00	94.75	237.25	331.25	0.00	0.00	51.75	3.25
14	DAVIS	3250.65	30.00	94.75	141.00	307.75	0.00	0.00	32.75	0.75
3	TGM 255-2-4341	3125.62	33.00	94.00	211.75	384.50	0.00	0.00	59.00	2.25
8	TGM 256-1-B	2979.76	38.00	94.25	224.75	381.50	0.00	0.00	54.50	1.75
1	TGM 220-1-2205	2958.92	41.00	102.00	278.75	306.75	0.00	0.00	46.50	2.75
9	JUPITER	2917.25	46.00	109.75	279.75	507.00	0.00	0.00	55.50	3.25
5	TGM 294-4-2371	2917.25	42.25	102.00	243.75	342.25	0.00	0.00	64.50	3.50
13	COBB	2854.74	27.00	94.50	100.25	298.25	0.00	0.00	29.00	0.00
15	IMPROVED PELICAN	2563.01	36.75	89.50	163.00	266.25	0.00	0.00	60.75	1.50
6	TGX 66-5100	2458.82	35.75	86.00	111.50	215.50	0.00	0.00	54.25	2.25
10	BOSSIER	2375.47	24.75	88.50	141.75	271.75	0.00	0.00	22.00	1.25
12	CLARK 63	2187.94	24.25	82.75	84.50	217.75	0.00	0.00	35.25	3.25
11	WILLIAMS	2021.24	24.00	83.50	134.25	239.50	0.00	0.00	33.25	3.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=-.05 ++ - PROB=-.01)										
YIELD	KG/HA	1.00	0.35++	0.57++	0.49++	0.46++	0.00	0.00	0.48++	0.19
DAYS TO FLOWER	1.00	0.35++	1.00	0.74++	0.64++	0.42++	0.00	0.00	0.65++	0.28+
DAYS TO MATURITY	0.57++	0.74++	1.00	0.66++	0.66++	0.64++	0.00	0.00	0.48++	0.23
NODULE NUMBER 1	0.49++	0.64++	0.64++	1.00	0.51++	0.51++	0.00	0.00	0.45++	0.32+
NODULE NUMBER 2	0.46++	0.42++	0.64++	0.51++	1.00	1.00	0.00	0.00	0.29+	0.02
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.48++	0.65++	0.48++	0.48++	0.45++	0.29+	0.00	0.00	1.00	0.59++
LODGING	0.19	0.28+	0.23	0.23	0.32+	0.02	0.00	0.00	0.59++	1.00
SHATTER	0.20	0.02	0.09	0.09	0.05	0.03	0.00	0.00	-0.01	0.08
HARVEST	0.13	-0.01	-0.13	-0.13	-0.17	-0.23	0.00	0.00	0.30+	0.11
PODS PER PLANT	0.32+	0.46++	0.59++	0.59++	0.41++	0.42++	0.00	0.00	0.39++	0.18
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 95 EXPERIMENT 221 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	TGM 249-4-B	0.00	164.75	37.47	0.00	0.00	45.3	23.5
7	TGX 13-3-2644	0.50	216.75	40.17	0.00	0.00	42.4	24.5
16	HARDEE	0.00	148.25	32.37	0.00	0.00	43.9	25.7
2	TGM 210-1-2363	2.75	204.25	25.35	0.00	0.00	45.3	23.2
14	DAVIS	0.25	197.75	23.85	0.00	0.00	44.5	23.9
3	TGM 255-2-4341	0.00	223.50	32.17	0.00	0.00	45.8	24.7
8	TGM 256-1-B	0.00	185.25	24.97	0.00	0.00	48.3	20.1
1	TGM 220-1-2205	0.00	139.25	34.75	0.00	0.00	44.1	23.9
9	JUPITER	0.00	59.00	53.62	0.00	0.00	43.7	26.3
5	TGM 294-4-2371	0.25	274.00	20.33	0.00	0.00	49.1	20.0
13	COBB	1.00	178.25	23.33	0.00	0.00	45.1	23.8
15	IMPROVED PELICAN	0.00	172.00	27.55	0.00	0.00	46.1	21.5
6	TGX 66-5100	0.00	242.25	22.20	0.00	0.00	47.4	23.4
10	BOSSIER	0.00	151.25	18.55	0.00	0.00	44.1	24.5
12	CLARK 63	0.00	183.75	14.75	0.00	0.00	41.6	27.5
11	WILLIAMS	0.00	132.50	18.90	0.00	0.00		
	GRAND MEAN	0.30	179.55	28.15	0.00	0.00		
	STANDARD ERROR OF A VARIETY MEAN	0.24	13.37	4.77	0.00	0.00		
	COEFFICIENT OF VARIATION	164.28%	14.90%	33.87%	0.00%	0.00%		
	5% 1ST VARIETY MEANS (*****NS)	0.69	38.10	13.58	0.00	0.00		
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)								
	YIELD KG/HA	0.20	0.13	0.32+	0.00	0.00		
	DAYS TO FLOWER	0.02	-0.01	0.46++	0.00	0.00		
	DAYS TO MATURITY	0.09	-0.13	0.59++	0.00	0.00		
	NODULE NUMBER 1	0.05	-0.17	0.41++	0.00	0.00		
	NODULE NUMBER 2	0.03	-0.23	0.42++	0.00	0.00		
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
	PLANT HEIGHT	-0.01	0.30+	0.39++	0.00	0.00		
	LODGING	0.08	0.11	0.18	0.00	0.00		
	SHATTER	1.00	0.17	-0.08	0.00	0.00		
	PLANTS HARVEST	0.17	1.00	-0.38++	0.00	0.00		
	PODS PER PLANT	-0.08	-0.38++	1.00	0.00	0.00		
	100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00		
	QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00		

TABLE 96 EXPERIMENT 324 YEAR 1976

REGION - AFRICA COUNTRY - UGANDA
 SITE - KAMPALA ELEVATION - 1160 M
 LATITUDE - 0 DEG. 28 MIN. N LONGITUDE - 32 DEG. 27 MIN. E
 COOPERATOR - C.K. BULUNGU DATE HARVESTED - FEBRUARY, 1977
 SOIL TYPE - SILT
 FERTILIZER USED (KG/HA) - P 30.8, K 41.5
 AMOUNT OF MOISTURE - 534 MM
 LOCAL VARIETIES - BUKALASA-4, CONGO-72, KABANYOLO-1, 403DR, 8-350, 43S, 43K, 43E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
6	43S	1724.93	51.00	128.00	63.25	87.25	0.29	0.61	39.20	1.00
2	CONGO-72	1709.93	51.75	111.50	50.00	50.75	0.14	0.32	48.45	1.00
5	8-350	1702.01	56.75	133.00	129.25	158.25	0.56	0.80	50.25	1.00
8	43E	1621.99	55.25	132.75	40.50	65.50	0.11	0.20	52.75	1.00
16	FORREST	1589.90	40.25	104.25	26.50	93.75	0.05	0.46	29.03	1.00
3	KABANYOLO-1	1574.06	47.75	115.50	54.25	60.75	0.20	0.41	56.75	1.00
7	43K	1523.64	52.25	136.25	80.00	67.75	0.27	0.39	53.70	1.00
14	DAVIS	1469.46	41.00	111.00	48.00	77.25	0.13	0.29	28.85	1.00
9	JUPITER	1403.20	50.25	119.25	34.50	45.75	0.05	0.31	46.25	1.00
4	403DR	1353.60	51.75	125.25	32.75	85.50	0.09	0.57	38.40	1.00
15	IMPROVED PELICAN	1196.91	41.75	100.25	19.25	22.25	0.03	0.07	41.33	1.00
13	COBB	1158.98	30.75	99.25	2.00	34.25	0.01	0.11	24.45	1.00
11	WILLIAMS	1128.98	30.75	96.50	2.75	56.25	0.02	0.20	27.85	1.00
1	BUKALASA-4	1007.28	56.50	111.25	62.75	73.75	0.38	0.57	47.50	1.00
12	CLARK 63	966.44	30.50	96.50	4.00	72.75	0.02	0.31	26.85	1.00
10	BOSSIER	693.89	31.25	96.75	2.75	29.00	0.02	0.26	18.08	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% ISL VARIETY MEANS (*****=NS)										
CORRELATIONS										
(+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.44++	0.49++	0.51++	0.54++	0.40++	0.52++	0.55++	0.00
DAYS TO FLOWER	1.00	0.82++	1.00	0.82++	0.68++	0.35++	0.60++	0.43++	0.80++	0.00
DAYS TO MATURITY	0.49++	0.82++	1.00	0.66++	0.66++	0.42++	0.53++	0.42++	0.66++	0.00
NODULE NUMBER 1	0.51++	0.68++	0.66++	1.00	0.68++	1.00	0.91++	0.64++	0.64++	0.00
NODULE NUMBER 2	0.54++	0.35++	0.42++	0.68++	0.68++	1.00	0.67++	0.82++	0.30++	0.00
NODULE WEIGHT 1	0.40++	0.60++	0.53++	0.91++	0.91++	0.67++	1.00	0.70++	0.58++	0.00
NODULE WEIGHT 2	0.52++	0.43++	0.42++	0.64++	0.64++	0.82++	0.70++	1.00	0.39++	0.00
PLANT	HEIGHT	0.55++	0.80++	0.66++	0.64++	0.30++	0.58++	0.39++	1.00	0.00
LOGGING	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.22	0.72++	0.15	0.40++	0.54++	0.40++	0.57++	0.46++	0.47++	0.00
HARVEST	0.19	-0.14	-0.15	-0.08	-0.08	-0.00	-0.00	0.02	0.12	0.00
PODS PER PLANT	0.60++	0.39++	0.37++	0.38++	0.38++	0.32++	0.21	0.31+	0.51++	0.00
100 SEED WEIGHT	0.30+	0.53++	0.70++	0.44++	0.44++	0.36++	0.40++	0.36++	0.32+	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 96 EXPERIMENT 324 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
6	43S	2.00	178.50	19.30	18.50	1.00	43.1	20.8
2	CONGO-72	1.00	177.00	26.48	16.25	1.00	38.5	21.7
5	8-350	2.00	200.00	23.60	18.50	1.00	44.9	19.3
8	43E	2.00	180.00	22.10	18.75	1.00	43.1	20.0
16	FORREST	1.00	176.50	22.30	15.25	1.00	41.3	21.7
3	KABANYOLO-1	1.00	217.50	23.18	14.75	1.00	42.1	19.6
7	43K	2.00	159.00	23.00	19.75	1.00	43.4	19.8
14	DAVIS	1.00	161.50	19.48	17.00	1.00	42.8	22.1
9	JUPITER	1.00	152.00	25.55	18.25	1.00	42.8	22.5
4	403DR	2.00	112.75	21.73	18.50	1.00	43.9	19.5
15	IMPROVED PELICAN	1.00	212.75	25.03	12.00	1.00	43.8	22.3
13	COBB	1.00	192.00	16.10	16.00	1.00	41.3	21.8
11	WILLIAMS	1.00	231.00	14.28	17.25	1.00	43.2	22.0
1	BUKALASA-4	2.00	141.25	17.43	17.75	1.00	44.9	18.2
12	CLARK 63	1.00	160.00	17.23	15.00	1.00	42.5	23.1
10	BOSSIER	1.00	143.00	12.23	15.50	1.00	45.8	21.0

GRAND MEAN 1.38 174.67 20.56 16.81 1.00
 STANDARD ERROR OF A VARIETY MEAN 0.00 20.62 2.49 0.35 0.00
 COEFFICIENT OF VARIATION 0.00% 23.61% 24.25% 4.19% 0.00%
 5% LSD VARIETY MEANS (*****=NS) 0.00 58.72 7.10 1.00 0.00

C O R R E L A T I O N S (+ - PROB=.05 ** - PROB=.01)

YIELD	KG/HA	0.22	0.19	0.60++	0.30+	0.00
DAYS TO FLOWER	0.72++	-0.14	0.39++	0.53++	0.00	0.00
DAYS TO MATURITY	0.78++	-0.15	0.37++	0.70++	0.00	0.00
NODULE NUMBER 1	0.54++	-0.08	0.38++	0.44++	0.00	0.00
NODULE NUMBER 2	0.40++	-0.00	0.32++	0.36++	0.00	0.00
NODULE WEIGHT 1	0.57++	-0.00	0.21	0.40++	0.00	0.00
NODULE WEIGHT 2	0.46++	0.02	0.31+	0.36++	0.00	0.00
PLANT	HEIGHT	0.47++	0.12	0.51++	0.32+	0.00
LOGGING	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	-0.20	0.07	0.69++	0.00	0.00
PLANTS HARVEST	-0.20	1.00	-0.24	-0.24	0.00	0.00
PODS PER PLANT	0.07	-0.24	1.00	0.03	0.00	0.00
100 SEED WEIGHT	0.69++	-0.24	0.03	1.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	0.00

TABLE 97 EXPERIMENT 232 YEAR 1976

REGION - AFRICA COUNTRY - UPPER VOLTA
 SITE - BOBO-DIOULASSO ELEVATION - 250 M
 LATITUDE - 11 DEG. 25 MIN. N LONGITUDE - 4 DEG. 20 MIN. W
 COOPERATOR - C.I. KORTEWEG DATE HARVESTED - OCTOBER, 1976
 DATE PLANTED - JULY 22, 1976
 SOIL TYPE - CLAY, PH 5.5
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 639 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	CLARK 63	3418.18	27.00	78.00	302.25	465.00	0.00	0.00	69.80	4.00
8	FORREST	3374.84	32.00	80.00	329.50	595.00	0.00	0.00	59.03	3.00
3	WILLIAMS	3305.24	27.00	75.00	246.25	565.75	0.00	0.00	61.20	2.00
5	COBB	2893.91	32.00	84.00	146.25	419.75	0.00	0.00	50.55	2.00
6	DAVIS	2806.39	32.00	82.00	252.25	436.00	0.00	0.00	45.15	3.00
2	BOSSIER	2707.62	28.00	82.00	218.25	539.25	0.00	0.00	42.70	2.00
1	JUPITER	2603.44	44.00	103.00	196.25	757.50	0.00	0.00	93.10	3.00
7	IMPROVED PELICAN	2097.09	37.00	84.00	183.50	334.50	0.00	0.00	93.90	4.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		2900.84	32.38	83.50	234.31	514.09	0.00	0.00	64.43	2.88
COEFFICIENT OF VARIATION		84.81	0.00	0.00	47.87	98.74	0.00	0.00	5.22	0.00
5% LSD VARIETY MEANS (*****=NS)		5.85%	0.00%	0.00%	40.86%	38.41%	0.00%	0.00%	16.19%	0.00%
		249.43	0.00	0.00	*****	*****	0.00	0.00	15.34	0.00
C O R R E L A T I O N S (+ - PROB=.05 +- - - PROB=-.01)										
YIELD	KG/HA	1.00	-0.58++	-0.48++	0.35+	0.01	0.00	0.00	-0.34	-0.17
DAYS TO FLOWER		-0.58++	1.00	0.91++	-0.23	0.21	0.00	0.00	0.64++	0.28
DAYS TO MATURITY		-0.48++	0.91++	1.00	-0.25	0.31	0.00	0.00	0.49++	0.09
NODULE NUMBER 1		0.35+	-0.23	-0.25	1.00	0.06	0.00	0.00	-0.18	0.17
NODULE NUMBER 2		0.01	0.21	0.31	0.06	1.00	0.00	0.00	0.03	-0.16
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		-0.34	0.64++	0.49++	-0.18	0.03	0.00	0.00	1.00	0.57++
LODGING		-0.17	0.28	0.09	0.17	-0.16	0.00	0.00	0.57++	1.00
SHATTER		0.14	0.33	0.51++	0.08	0.26	0.00	0.00	0.48++	0.46++
PLANTS HARVEST		0.23	-0.53++	-0.57++	-0.03	-0.11	0.00	0.00	-0.37+	-0.13
PODS PER PLANT		-0.52++	0.80++	0.70++	-0.35+	0.01	0.00	0.00	0.49++	0.16
100 SEED WEIGHT		0.63++	-0.41+	-0.09	0.15	0.36+	0.00	0.00	-0.46++	-0.66++
QUALITY OF SEED		-0.16	0.43+	0.17	0.05	-0.07	0.00	0.00	0.53++	0.59++

TABLE 97 EXPERIMENT 232 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	CLARK 63	2.00	210.00	23.50	17.50	3.00
8	FORREST	1.00	172.50	38.00	17.20	4.00
3	WILLIAMS	1.00	254.00	27.25	19.40	2.00
5	COBB	1.00	193.75	39.75	17.00	3.00
6	DAVIS	1.00	242.75	31.75	16.40	2.00
2	BOSSIER	1.00	180.75	32.00	18.80	2.00
1	JUPITER	2.00	146.75	57.50	17.80	3.00
7	IMPROVED PELICAN	1.00	187.00	51.25	11.70	4.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.25	198.44	37.63	16.97	2.88
COEFFICIENT OF VARIATION		0.00	14.33	3.36	0.00	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00%	14.45%	17.86%	0.00%	0.00%
		0.00	42.16	9.88	0.00	0.00
C O R R E L A T I O N S						
			(+ - PROB=.05		++ - PROB=.01)	
YIELD	KG/HA	0.14	0.23	-0.52++	0.63++	-0.16
DAYS TO FLOWER		0.33	-0.53++	0.80++	-0.41+	0.43+
DAYS TO MATURITY		0.51++	-0.57++	0.70++	-0.09	0.17
NODULE NUMBER 1		0.08	-0.03	-0.35+	0.15	0.05
NODULE NUMBER 2		0.26	-0.11	0.01	0.36+	-0.07
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT		0.00	0.00	0.00	0.00	0.00
HEIGHT		0.48++	-0.37+	0.49++	-0.46++	0.53++
LODGING		0.46++	-0.13	0.16	-0.66++	0.59++
SHATTER		1.00	-0.28	0.13	0.18	0.09
PLANTS		-0.28	1.00	-0.50++	0.13	-0.46++
HARVEST		0.13	-0.50++	1.00	-0.41+	0.44+
PODS PER		0.18	0.13	-0.41+	1.00	-0.64++
100 SEED		0.09	-0.46++	0.44+	-0.64+	1.00
QUALITY	OF SEED					

TABLE 98 EXPERIMENT 278 YEAR 1976

REGION - AFRICA COUNTRY - ZAIRE
 SITE - KISANGA ELEVATION - 1187 M
 LATITUDE - 11 DEG. 44 MIN. S LONGITUDE - 27 DEG. 25 MIN. E
 COOPERATOR - T.G. HART
 DATE PLANTED - JANUARY 5, 1977 DATE HARVESTED - APRIL, 1977
 SOIL TYPE - SAND 22%, SILT 23%, CLAY 55%, PH 6.4
 FERTILIZER USED (KG/HA) - N 60.0, P 12.3
 AMOUNT OF MOISTURE - 816 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	DAVIS	2352.14	44.00	101.00	143.75	165.50	1.85	3.15	35.40	1.00
1	TGN 249-4-B	2090.83	44.00	99.25	194.25	238.00	1.68	3.15	63.05	1.00
4	JUPITER	2019.57	52.00	123.00	216.00	280.75	2.23	4.30	89.75	4.00
10	IMPROVED PELICAN	1987.90	48.00	99.25	103.00	170.75	1.45	2.68	62.23	1.00
11	FORREST	1829.12	44.00	97.50	162.00	234.50	1.80	3.28	35.35	1.00
2	TGN 294-4-2371	1801.61	60.00	117.00	127.25	160.00	1.45	2.10	69.50	1.00
8	COBB	1788.69	44.00	101.00	209.25	188.75	2.70	3.55	30.20	1.00
3	TGX 66-5100	1664.92	44.00	94.00	130.00	123.75	1.83	3.05	56.50	1.00
5	BOSSIER	1621.99	22.00	94.00	211.25	232.75	2.45	4.58	25.90	1.00
6	WILLIAMS	1446.96	22.00	94.00	267.75	235.50	2.15	3.70	34.25	1.00
7	CLARK 63	1430.70	27.50	94.00	215.25	208.50	2.33	3.08	37.60	1.00
GRAND MEAN										
1821.31										
STANDARD ERROR OF A VARIETY MEAN										
202.60										
COEFFICIENT OF VARIATION										
22.25%										
5% LSC VARIETY MEANS (*****=NS)										

CORRELATIONS										
(+ - PROB=-.05 +- - PROB=-.01)										
YIELD	KG/HA	1.00	0.39++	0.27	-0.02	-0.00	0.01	-0.09	0.31+	0.14
DAYS TO FLOWER	0.39++	1.00	0.69++	0.69++	-0.44+	-0.18	-0.32+	-0.28	0.66++	0.29
DAYS TO MATURITY	0.27	0.69++	1.00	1.00	-0.09	0.10	-0.08	-0.05	0.75++	0.73++
NODULE NUMBER 1	-0.02	-0.44++	-0.09	-0.09	1.00	0.58++	0.58++	0.51++	-0.15	0.17
NODULE NUMBER 2	-0.00	-0.18	0.10	0.10	0.58++	1.00	0.09	0.77++	0.06	0.29
NODULE WEIGHT 1	0.01	-0.32+	-0.08	-0.08	0.58++	0.09	1.00	0.37+	-0.24	0.12
NODULE WEIGHT 2	-0.09	-0.28	-0.05	-0.05	0.51+	0.77++	0.37+	1.00	-0.10	0.23
PLANT HEIGHT	0.31+	0.66++	0.66++	0.75++	-0.15	0.06	-0.24	-0.10	1.00	0.64++
LODGING	0.14	0.29	0.73++	0.73++	0.17	0.29	0.12	0.23	0.64++	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	-0.20	-0.51++	-0.37+	-0.37+	0.17	-0.08	0.09	-0.03	-0.24	-0.07
PODS PER PLANT	0.40++	0.79++	0.78++	0.78++	-0.24	0.02	-0.19	-0.17	0.76++	0.37+
100 SEED WEIGHT	0.14	-0.37+	-0.01	-0.01	0.47++	0.12	0.45++	0.20	-0.37+	0.15
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 98 EXPERIMENT 278 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	DAVIS	1.00	208.25	24.83	21.90	1.00	41.7	21.8
1	TGM 249-4-B	1.00	188.00	31.45	18.08	1.00	44.9	19.1
4	JUPITER	1.00	187.75	41.60	20.13	1.00	42.5	20.6
10	IMPROVED PELICAN	1.00	189.00	34.03	16.00	1.00	44.7	19.5
11	FORREST	1.00	203.75	25.78	18.20	1.00	43.6	21.2
2	TGM 294-4-2371	1.00	153.50	49.13	17.23	1.00	43.7	17.5
8	COBB	1.00	169.25	26.25	21.30	1.00	41.6	20.8
3	TGX 66-5100	1.00	180.00	26.50	16.78	1.00	43.9	19.2
5	BOSSIER	1.00	194.75	18.90	20.13	1.00	45.4	20.9
6	WILLIAMS	1.00	227.25	14.90	21.38	1.00	43.1	20.4
7	CLARK 63	1.00	260.50	15.45	19.23	1.00	43.1	19.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	196.55	28.07	19.12	1.00		
COEFFICIENT OF VARIATION		0.00	15.00	3.27	0.60	0.00		
5% LSD VARIETY MEANS (*****NS)		0.00	15.27%	23.30%	6.26%	0.00%		
		0.00	43.33	9.45	1.73	0.00		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	-0.20	0.40++	0.14	0.00		
DAYS TO FLOWER		0.00	-0.51++	0.79++	-0.37+	0.00		
DAYS TO MATURITY		0.00	-0.37+	0.78++	-0.01	0.00		
NODULE NUMBER 1		0.00	0.17	-0.24	0.47++	0.00		
NODULE NUMBER 2		0.00	-0.08	0.02	0.12	0.00		
NODULE WEIGHT 1		0.00	0.09	-0.19	0.45++	0.00		
NODULE WEIGHT 2		0.00	-0.03	-0.17	0.20	0.00		
PLANT	HEIGHT	0.00	-0.24	0.76++	-0.37+	0.00		
LODGING		0.00	-0.07	0.37+	0.15	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS	HARVEST	0.00	1.00	-0.62++	0.23	0.00		
PODS PER PLANT		0.00	-0.62++	1.00	-0.31+	0.00		
100 SEED WEIGHT		0.00	0.23	-0.31+	1.00	0.00		
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00		

TABLE 99 EXPERIMENT 187 YEAR 1976

REGION - AFRICA COUNTRY - ZAMBIA
 SITE - KABWE ELEVATION - 1207 M
 COOPERATORS - N.S. LIPOVAC, P. JAVAHERI LONGITUDE - 28 DEG. 16 MIN. E
 DATE PLANTED - DECEMBER 14, 1976 DATE HARVESTED - APRIL, 1977
 SOIL TYPE - SAND 77.6%, SILT 13.6%, CLAY 8.8%, PH 5.5
 FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
 AMOUNT OF MOISTURE - 650 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
12	DAVIS	4494.23	39.00	110.50	162.75	268.25	5.60	9.97	72.50	1.00
14	PORREST	4185.84	34.00	105.25	54.25	196.75	1.08	4.55	62.75	1.00
4	RANSON	4074.98	29.00	100.50	139.25	271.50	2.85	7.60	35.50	1.00
16	ESSEX	4064.56	32.00	105.50	153.50	323.75	2.98	8.05	47.25	1.00
11	COBB	4022.05	36.00	109.00	73.75	220.25	1.80	6.60	61.50	1.00
3	BAGG	3859.52	31.00	105.50	89.25	239.00	1.73	6.33	46.00	1.00
15	COLUMBUS	3821.60	26.00	95.50	160.00	190.00	3.10	6.60	61.75	1.00
1	CALLAND	3509.87	28.00	96.00	129.75	175.25	2.75	6.33	49.00	1.00
5	HILL	3504.03	41.00	103.75	112.75	169.50	3.53	4.60	65.00	1.00
6	PICKETT 71	3280.66	31.00	98.50	74.00	129.25	1.00	4.43	35.00	1.00
13	IMPROVED PELICAN	3177.72	54.00	110.75	122.00	201.25	2.65	6.65	106.75	1.00
8	BOSSIER	3154.80	31.00	102.00	122.75	183.00	2.55	7.10	34.00	1.00
7	CUTLER 71	3142.71	27.00	94.50	106.25	176.00	2.80	7.38	54.75	1.00
2	WOODWORTH	2858.90	25.00	82.75	117.50	115.50	2.38	3.40	48.50	1.00
10	CLARK 63	2828.48	28.00	90.75	140.50	184.50	2.43	7.30	48.25	1.00
9	WILLIAMS	2784.72	25.00	90.50	107.00	135.00	2.63	4.35	41.50	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		0.18	1.00							
DAYS TO MATURITY		0.55++	0.71++	1.00						
NODULE NUMBER 1		0.08	-0.03	-0.01	1.00					
NODULE NUMBER 2		0.57++	0.16	0.36++	0.32+	1.00				
NODULE WEIGHT 1		0.34++	0.15	0.69++	0.32+	0.62++	1.00			
NODULE WEIGHT 2		0.43++	0.12	0.32++	0.37++	0.62++	0.43++	1.00		
PLANT HEIGHT		0.19	0.79++	0.43++	0.07	0.12	0.28+	0.10	1.00	
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		-0.03	-0.20	-0.19	-0.11	-0.13	0.00	-0.26+	-0.01	0.00
PLANTS PER PLANT		0.20	0.34++	0.16	0.24	0.05	0.30+	0.16	0.45++	0.00
PODS PER 100 SEED		0.19	-0.48++	-0.24	0.01	0.11	0.01	0.07	-0.39++	0.00
QUALITY OF SEED		-0.26+	-0.76++	-0.72++	-0.00	-0.28+	-0.26+	-0.28+	-0.43++	0.00

TABLE 99 EXPERIMENT 187 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
12	DAVIS	0.00	263.25	24.50	21.50	1.00
14	FORREST	0.00	264.25	25.00	20.00	3.00
4	RANSOM	0.00	237.00	20.75	23.00	2.00
16	ESSEX	0.00	250.75	23.75	20.50	3.00
11	COBB	0.00	224.75	26.00	20.50	2.00
3	BRAGG	0.00	265.00	17.25	22.75	2.00
15	COLUMBUS	0.00	280.75	29.50	20.75	4.00
1	CALLAND	0.00	243.25	21.75	24.00	4.00
5	HILL	0.00	234.75	31.25	20.00	2.00
6	PICKETT 71	0.00	252.50	20.75	19.75	3.00
13	IMPROVED PELICAN	0.00	226.25	30.00	15.75	1.00
8	BOSSIER	0.00	166.00	21.75	20.50	2.00
7	CUTLER 71	0.00	240.50	23.50	21.50	3.00
2	WOODWORTH	0.00	236.50	27.00	22.25	4.00
10	CLARK 63	0.00	272.50	22.25	19.25	3.00
9	WILLIAMS	0.00	294.50	17.00	21.75	3.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	247.03	23.88	20.86	2.63
COEFFICIENT OF VARIATION		0.00	16.24	2.60	1.10	0.00
5% 1SD VARIETY MEANS (*****=NS)		0.00	13.15%	21.77%	10.56%	0.00%
		0.00	46.26	7.40	3.14	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD	KG/HA	0.00	-0.03	0.20	0.19	-0.26+
DAYS TO FLOWER		0.00	-0.20	0.34++	-0.48++	-0.76++
DAYS TO MATURITY		0.00	-0.19	0.16	-0.24	-0.72++
NODULE NUMBER 1		0.00	-0.11	0.24	0.01	-0.00
NODULE NUMBER 2		0.00	-0.13	0.05	0.11	-0.28+
NODULE WEIGHT 1		0.00	0.00	0.30+	0.01	-0.26+
NODULE WEIGHT 2		0.00	-0.26+	0.16	0.07	-0.28+
PLANT	HEIGHT	0.00	-0.01	0.45++	-0.39++	-0.43++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.36++	0.08	0.22
PODS PER PLANT		0.00	-0.36++	1.00	-0.30+	-0.05
100 SEED WEIGHT		0.00	0.08	-0.30+	1.00	0.27+
QUALITY OF SEED		0.00	0.22	-0.05	0.27+	1.00

TABLE 100 EXPERIMENT 189 YEAR 1976

REGION - AFRICA COUNTRY - ZAMBIA
 SITE - MAGOYE ELEVATION - 1067 M
 LATITUDE - 16 DEG. 1 MIN. S LONGITUDE - 27 DEG. 37 MIN. E
 COOPERATOR - F. JAVAHERI
 DATE PLANTED - DECEMBER 15, 1976 DATE HARVESTED - MARCH, 1977
 SOIL TYPE - SAND 74.5%, SILT 10.0%, CLAY 15.5%, PH 4.8
 FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 52.0
 AMOUNT OF MOISTURE - 386 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	COBB	4155.83	31.50	97.75	27.75	201.00	0.22	1.92	51.95	1.00
1	CALLAND	3993.72	21.00	85.00	28.50	282.25	0.11	1.76	49.20	1.00
13	IMPROVED PELICAN	3826.60	49.00	101.00	215.25	236.50	0.82	2.60	97.45	1.00
16	ESSEX	3785.34	24.00	93.00	54.50	290.75	0.32	1.63	39.90	1.00
15	COLUMBUS	3766.59	21.00	86.50	37.75	256.75	0.16	2.12	52.80	1.25
12	DAVIS	3709.07	37.50	97.25	109.00	285.75	1.62	3.47	68.65	1.25
8	BOSSIER	3646.98	25.75	92.00	25.50	278.00	0.16	1.74	33.40	1.00
5	HILL	3543.63	37.50	93.50	36.50	154.25	0.33	1.85	60.45	2.00
4	RANSOM	3501.53	25.50	92.00	32.50	312.25	0.08	1.70	36.75	1.00
3	BRAGG	3162.72	26.25	92.00	8.00	376.75	0.16	1.35	40.25	1.00
7	CUTLER 71	3024.77	21.00	83.50	66.00	306.75	0.24	2.35	52.70	1.25
10	CLARK 63	2835.57	21.00	82.50	23.75	222.75	0.20	1.48	51.05	1.25
6	PICKETT 71	2746.38	29.50	92.00	5.75	178.75	0.03	1.14	32.70	1.00
9	WILLIAMS	2683.45	21.00	82.00	45.75	136.25	0.21	0.98	45.40	1.25
14	FORREST	2522.17	31.25	94.75	16.75	240.50	0.20	1.72	60.70	1.25
2	WOODWORTH	2250.03	21.00	76.00	26.25	134.25	0.11	1.00	43.00	1.75
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
(+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.20	0.38++	0.14	0.06	0.12	0.16	0.15	-0.27+
DAYS TO FLOWER	0.20	1.00	0.80++	0.59++	0.80++	-0.06	0.42++	0.31+	0.71++	0.02
DAYS TO MATURITY	0.38++	0.80++	1.00	0.37++	0.37++	0.14	0.32++	0.32+	0.42++	-0.21
NODULE NUMBER 1	0.14	0.59++	0.37++	1.00	1.00	0.07	0.62++	0.38++	0.76++	-0.11
NODULE NUMBER 2	0.06	-0.06	0.14	0.07	0.07	1.00	0.05	0.47++	0.03	-0.26+
NODULE WEIGHT 1	0.12	0.42++	0.32++	0.62++	0.62++	0.05	1.00	0.31+	0.45++	-0.10
NODULE WEIGHT 2	0.16	0.31+	0.32++	0.38++	0.38++	0.47++	0.31+	1.00	0.35++	-0.07
PLANT HEIGHT	0.15	0.71++	0.42++	0.76++	0.76++	0.03	0.45++	0.35++	1.00	0.08
LODGING	-0.27+	0.02	-0.21	-0.11	-0.11	-0.26+	-0.10	-0.07	0.08	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	-0.18	-0.22	-0.32++	0.07	0.07	0.25+	0.16	0.21	0.12	0.10
PLANTS PER PLANT	0.27+	0.73++	0.58++	0.61++	0.61++	-0.11	0.27+	0.20	0.73++	-0.04
100 SEED WEIGHT	0.24	-0.26+	0.03	-0.11	-0.11	0.48++	-0.04	0.29+	-0.13	-0.17
QUALITY OF SEED	0.00	-0.30+	-0.05	-0.24	-0.24	-0.06	0.05	-0.14	-0.35++	-0.12

TABLE 100

EXPERIMENT 189

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	COBB	1.00	232.25	32.53	20.85	3.75	39.1	25.3
1	CALLAND	1.00	253.00	19.25	21.95	2.50	39.4	22.9
13	IMPROVED PELICAN	1.00	220.00	52.07	17.00	1.00	41.9	22.2
16	ESSEX	1.00	220.00	26.27	20.18	3.00	41.3	21.4
15	COLUMBUS	1.00	271.50	16.75	21.45	2.00	41.4	21.8
12	DAVIS	1.00	297.50	25.23	23.28	2.25	41.1	21.8
8	BOSSIER	1.00	191.25	21.60	19.75	2.50	39.8	23.6
5	HILL	1.00	236.25	27.63	17.83	2.25	38.4	22.6
4	RANSOM	1.00	268.25	17.47	21.70	2.75	39.8	23.7
3	BRAGG	1.00	261.50	15.98	22.63	1.75	41.2	22.0
7	CUTLER 71	1.00	240.75	24.65	23.38	2.75	41.9	22.1
10	CLARK 63	1.00	294.50	21.28	19.98	2.25	37.8	23.7
6	PICKETT 71	1.00	202.75	20.83	19.00	3.00	40.1	23.9
9	WILLIAMS	1.00	281.50	15.03	20.68	2.75	37.8	24.4
14	FORREST	1.00	263.25	28.08	18.25	2.75	39.0	22.4
2	WOODWORTH	1.00	278.25	20.25	15.55	2.25	36.3	24.8

GRAND MEAN

STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% LSD VARIETY MEANS (*****=NS)

250.78 24.05 20.21 2.47
14.51 2.30 0.70 0.33
11.57% 19.15% 6.90% 26.62%
41.33 6.56 1.99 0.94

CORRELATIONS

(+ - PROB=.05) ++ - PROB=.01)

YIELD	KG/HA	0.00	-0.18	0.27+	0.24	0.00
DAYS TO FLOWER	0.00	-0.22	0.73++	-0.26+	-0.30+	
DAYS TO MATURITY	0.00	-0.32++	0.58++	0.03	-0.05	
NODULE NUMBER 1	0.00	0.07	0.61++	-0.11	-0.24	
NODULE NUMBER 2	0.00	0.25+	-0.11	0.48++	-0.06	
NODULE WEIGHT 1	0.00	0.16	0.27+	-0.04	0.05	
NODULE WEIGHT 2	0.00	0.21	0.20	0.29+	-0.14	
PLANT	HEIGHT	0.00	0.12	0.73++	-0.13	-0.35++
LODGING	0.00	0.10	-0.04	-0.17	-0.12	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.38++	0.26+	-0.06	
PODS PER PLANT	0.00	-0.38++	1.00	-0.31+	-0.15	
100 SEED WEIGHT	0.00	0.26+	-0.31+	1.00	0.06	
QUALITY OF SEED	0.00	-0.06	-0.15	0.06	1.00	

TABLE 101 EXPERIMENT 188 YEAR 1976

REGION - AFRICA COUNTRY - ZAMBIA
 SITE - MAGOYE ELEVATION - 1049 M
 LATITUDE - 15 DEG. 5 MIN. S LONGITUDE - 27 DEG. 46 MIN. E
 COOPERATOR - F. JAVAHERI
 DATE PLANTED - DECEMBER 16, 1976 DATE HARVESTED - MARCH, 1977
 SOIL TYPE - SAND 48.9%, SILT 28.3%, CLAY 22.8%, PH 4.35
 FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
 AMOUNT OF MOISTURE - 378 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	BOSSIER	2574.26	27.50	93.50	7.50	140.75	0.05	0.71	34.20	1.00
2	WOODHORTH	2563.43	33.00	76.00	5.75	59.50	0.00	0.51	38.55	1.00
12	DAVIS	2545.51	37.00	98.50	14.25	101.75	0.10	0.93	51.15	1.50
11	COBB	2533.84	34.00	96.75	18.75	77.00	0.14	0.62	44.00	1.00
1	CALLAND	2457.57	23.00	88.50	5.00	107.25	0.00	0.61	51.50	1.00
15	COLUMBUS	2445.91	23.00	91.00	7.00	131.50	0.02	0.57	50.80	1.00
3	BRAGG	2337.55	27.25	89.50	1.00	133.75	0.00	0.62	41.65	1.00
16	ESSEX	2331.30	27.00	92.50	12.50	99.75	0.01	0.64	34.75	1.00
5	HILL	2253.37	37.00	92.50	18.75	85.75	0.03	1.19	51.10	2.00
14	FORREST	2247.53	34.75	94.00	8.25	79.50	0.01	0.52	46.80	1.00
4	RANSOM	2184.60	27.00	94.00	4.50	141.25	0.00	0.62	32.05	1.00
10	CLARK 63	2141.26	23.00	81.25	11.25	100.75	0.06	0.43	43.60	1.75
9	WILLIAMS	2094.17	23.00	80.50	12.50	63.00	0.02	0.27	40.20	1.25
13	IMPROVED PELICAN	1990.81	44.00	107.25	46.50	59.00	0.14	0.68	82.70	1.75
6	PICKETT 71	1948.72	27.00	87.00	3.75	84.50	0.03	0.40	28.95	1.00
7	CUTLER 71	1847.87	23.00	80.50	7.00	88.75	0.00	0.41	44.15	1.25
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.01	1.00							
DAYS TO MATURITY		0.15	0.78++	1.00						
NODULE NUMBER 1		-0.11	0.63++	0.41++	1.00					
NODULE NUMBER 2		-0.11	0.63++	0.41++	1.00					
NODULE WEIGHT 1		-0.15	0.08	0.14	0.49++	1.00				
NODULE WEIGHT 2		-0.05	0.32+	0.49++	0.16	0.49++	1.00			
PLANT HEIGHT		0.17	0.34++	0.28+	0.30+	0.21	0.21	1.00		
LODGING		-0.04	0.60++	0.51++	0.67++	0.20	0.35++	0.18	1.00	
SHATTER		-0.20	0.39++	0.07	0.48++	0.08	0.23	0.34++	0.46++	1.00
PLANTS HARVEST		0.07	0.01	0.15	-0.08	0.13	0.23	0.02	0.02	-0.04
PODS PER PLANT		0.11	-0.28+	-0.24	0.07	0.07	-0.23	0.01	-0.08	-0.00
100 SEED WEIGHT		0.01	0.41++	0.33++	0.51++	0.17	0.44++	0.01	0.44++	0.27+
QUALITY OF SEED		0.40++	0.11	0.23	0.00	0.15	0.02	0.13	0.22	-0.04
		-0.10	-0.07	-0.19	0.08	-0.13	-0.18	-0.07	0.10	0.14

TABLE 101 EXPERIMENT 188 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BOSSIER	1.25	155.50	21.13	18.65	2.25	41.3	21.6
2	WOODWORTH	1.00	251.25	17.42	17.75	2.75	40.0	22.3
12	DAVIS	1.50	263.75	21.67	21.75	2.25	42.0	20.7
11	COBB	1.00	208.50	26.45	17.80	2.50	38.7	23.0
1	CALLAND	1.25	263.25	14.08	20.53	3.50	40.8	21.1
15	COLUMBUS	1.00	236.75	18.58	18.20	1.50	41.4	22.3
3	BRAGG	1.00	260.50	15.63	18.93	2.75	41.8	22.0
16	ESSEX	1.00	234.00	19.53	16.03	2.25	40.9	21.2
5	HILL	1.00	231.75	18.17	17.35	2.25	39.3	21.9
14	FORREST	1.00	220.25	20.42	16.03	2.75	38.4	22.9
4	RANSOM	1.25	234.25	16.25	17.70	2.25	40.0	24.0
10	CLARK 63	1.00	237.50	24.03	16.35	2.50	41.1	22.0
9	WILLIAMS	1.00	255.25	19.92	18.63	3.25	41.0	22.4
13	IMPROVED PELICAN	1.00	181.50	30.40	18.78	2.75	43.4	21.8
6	PICKETT 71	1.00	205.50	17.65	16.13	2.75	40.9	21.7
7	CUTLER 71	1.25	208.00	22.28	17.95	2.50	40.1	22.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								

C O R R E L A T I O N S								
(+ - PROB=.05 +- - PROB=.01)								
YIELD	KG/HA	0.07	0.11	0.01	0.40++	-0.10		
DAYS TO FLOWER		0.01	-0.28+	0.41++	0.11	-0.07		
DAYS TO MATURITY		0.15	-0.33++	0.33++	0.23	-0.19		
NODULE NUMBER 1		-0.08	-0.24	0.51++	0.00	0.08		
NODULE NUMBER 2		0.13	0.07	-0.17	0.15	-0.13		
NODULE WEIGHT 1		0.10	-0.23	0.44++	0.02	-0.18		
NODULE WEIGHT 2		0.22	0.01	0.01	0.13	-0.07		
PLANT	HEIGHT	0.02	-0.08	0.44++	0.22	0.10		
LODGING		-0.04	-0.00	0.27+	-0.04	0.14		
SHATTER		1.00	0.01	0.04	0.27+	0.06		
PLANTS	HARVEST	0.01	1.00	-0.44++	0.17	0.12		
PODS PER PLANT		0.04	-0.44++	1.00	-0.12	-0.19		
100 SEED WEIGHT		0.27+	0.17	-0.12	1.00	0.13		
QUALITY OF SEED		0.06	0.12	-0.19	0.13	1.00		

TABLE 102 EXPERIMENT 997 YEAR 1976

REGION - AFRICA COUNTRY - ZAMBIA
 SITE - MAGOYE ELEVATION - 1067 M
 LATITUDE - 16 DEG. 1 MIN. S LONGITUDE - 27 DEG. 37 MIN. E
 COOPERATOR - P. JAVAHERI
 DATE PLANTED - DECEMBER 17, 1976 DATE HARVESTED - APRIL, 1977
 SOIL TYPE - SAND 68.9%, SILT 13.1%, CLAY 18.0%, PH 4.9
 FERTILIZER USED (KG/HA) - N 25.0, P 22.0, K 21.0
 AMOUNT OF MOISTURE - 370 MM
 LOCAL VARIETY - GEDULD

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	TGX 13-3-2644	2968.09	44.00	112.00	4.00	18.75	0.24	2.61	97.10	2.00
15	GEDULD	2795.98	44.00	102.00	7.50	34.00	0.75	4.44	72.60	1.00
14	DAVIS	2775.55	40.50	103.00	3.00	22.50	0.27	3.85	56.40	1.00
1	TGM 220-1-2205	2672.62	60.00	112.00	15.00	21.00	1.31	2.90	79.20	4.75
4	TGM 249-4-B	2602.60	42.50	104.50	1.50	11.25	0.07	1.16	70.00	1.00
16	FORREST	2594.27	38.00	98.25	2.00	20.75	0.10	1.93	57.60	1.00
8	TGM 256-1-B	2561.35	51.00	109.00	11.25	18.50	0.56	2.44	100.50	3.00
13	COBB	2523.42	103.00	103.00	2.75	14.50	0.39	2.02	53.15	1.00
5	TGM 294-4-2371	2484.66	62.00	109.00	13.00	22.75	1.73	2.92	84.60	1.00
10	BOSSIER	2375.89	35.75	97.00	4.00	18.00	0.13	1.48	40.20	1.00
11	WILLIAMS	2341.72	25.00	87.00	3.75	11.25	0.07	0.89	39.55	1.25
2	TGM 210-1-2363	2203.77	49.00	102.25	6.75	11.25	0.44	1.99	73.75	1.50
3	TGM 255-2-4341	2139.59	44.50	108.00	3.50	20.50	0.71	1.69	65.40	1.00
6	TGX 66-5100	2043.74	51.25	98.00	6.50	12.50	0.30	1.74	72.65	1.75
9	JUPITER	1915.38	62.00	122.75	14.50	16.25	1.30	2.56	109.65	2.75
12	CLARK 63	1573.23	25.00	80.00	2.50	7.50	0.08	0.81	41.45	1.50
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=-.05 +- - PROB=-.01)										
YIELD	KG/HA	1.00	0.09	0.26+	0.03	0.27+	-0.02	0.29+	0.17	0.02
DAYS TO FLOWER	0.09	0.09	1.00	0.81++	0.64++	0.22	0.60++	0.34++	0.78++	0.49++
DAYS TO MATURITY	0.26+	0.26+	0.81++	1.00	0.45++	0.27+	0.46++	0.38++	0.82++	0.41++
NODULE NUMBER 1	0.03	0.03	0.64++	0.45++	1.00	0.39++	0.79++	0.39++	0.52++	0.53++
NODULE NUMBER 2	0.27+	0.27+	0.22	0.27+	0.39++	1.00	0.43++	0.78++	0.20	0.00
NODULE WEIGHT 1	-0.02	-0.02	0.60++	0.46++	0.79++	0.43++	1.00	0.37++	0.42++	0.30+
NODULE WEIGHT 2	0.29+	0.29+	0.34++	0.38++	0.39++	0.78++	0.37++	1.00	0.37++	0.07
PLANT HEIGHT	0.17	0.17	0.78++	0.82++	0.52++	0.20	0.42++	0.37++	1.00	0.49++
LODGING	0.02	0.02	0.49++	0.41++	0.53++	0.00	0.30+	0.07	0.49++	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	-0.30+	-0.30+	0.03	-0.12	0.20	-0.13	0.14	-0.16	0.16	-0.06
PLANTS PER 100 SEED	0.22	0.22	0.38++	0.48++	0.15	0.16	0.27+	0.16	0.19	0.02
QUALITY OF SEED	0.06	0.06	-0.22	-0.10	-0.15	0.12	-0.13	0.24	-0.24	-0.29+
			-0.32++	-0.35++	-0.29+	-0.10	-0.24	-0.03	-0.33++	-0.33++

TABLE 102 EXPERIMENT 997 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
7	TGX 13-3-2644	1.00	238.75	20.25	18.95	1.25
15	GEDULD	1.00	243.75	21.00	20.15	2.75
14	DAVIS	1.00	121.00	36.25	21.13	1.50
1	TGM 220-1-2205	1.00	159.25	27.50	16.45	1.00
4	TGM 249-4-B	1.00	162.50	29.50	18.53	1.00
16	FORREST	1.00	248.25	24.50	17.15	2.25
8	TGM 256-1-B	1.00	253.00	27.75	15.10	1.25
13	COBB	1.00	171.00	30.25	19.43	2.75
5	TGM 294-4-2371	1.00	315.50	25.00	17.65	2.00
10	BOSSIER	1.00	240.50	22.75	19.00	2.25
11	WILLIAMS	1.00	328.50	11.75	18.38	2.50
2	TGM 210-1-2363	1.00	285.50	18.25	19.90	2.25
3	TGM 255-2-4341	1.00	206.50	39.50	14.33	1.25
6	TGX 66-5100	1.00	227.50	28.75	15.70	1.50
9	JUPIER	1.00	327.75	28.00	17.00	1.25
12	CLARK 63	1.00	283.25	13.25	16.73	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	238.28	25.27	17.85	1.80
COEFFICIENT OF VARIATION		0.00	9.07	2.33	0.56	0.37
5% LSD VARIETY MEANS (*****=NS)		0.00	7.61%	18.42%	6.26%	41.13%
		0.00	25.84	6.63	1.59	1.05
C O R R E L A T I O N S						
		(+ - PROB=.05		+ - PROB=.01)		
YIELD	KG/HA	0.00	-0.30+	0.22	0.25	0.06
DAYS TO FLOWER		0.00	0.03	0.38++	-0.22	-0.32++
DAYS TO MATURITY		0.00	-0.12	0.48++	-0.10	-0.35++
MODULE NUMBER 1		0.00	0.20	0.15	-0.15	-0.29+
MODULE NUMBER 2		0.00	-0.13	0.16	0.12	-0.10
MODULE WEIGHT 1		0.00	0.14	0.27+	-0.13	-0.24
MODULE WEIGHT 2		0.00	-0.16	0.16	0.24	-0.03
PLANT	HEIGHT	0.00	0.16	0.19	-0.24	-0.33++
LODGING		0.00	-0.06	0.02	-0.29+	-0.33++
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.56++	-0.17	0.22
PODS PER PLANT		0.00	-0.56++	1.00	-0.17	-0.33++
100 SEED WEIGHT		0.00	-0.17	-0.17	1.00	0.25+
QUALITY OF SEED		0.00	0.22	-0.33++	0.25+	1.00

TABLE 103 EXPERIMENT 186 YEAR 1976

REGION - AFRICA COUNTRY - ZAMBIA
 SITE - MUFULIRA ELEVATION - 1265 M
 LATITUDE - 12 DEG. 37 MIN. S LONGITUDE - 28 DEG. 9 MIN. E
 COOPERATORS - A.A.V. SARMEZEY, F. JAVAHERI
 DATE PLANTED - DECEMBER 12, 1976 DATE HARVESTED - APRIL, 1977
 SOIL TYPE - SANDY LOAM, PH 4.3
 FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
 AMOUNT OF MOISTURE - 905 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	CALLAND	2453.32	25.00	105.50	65.25	138.25	0.40	2.30	50.75	1.00
15	COLUMBUS	2346.47	26.50	96.00	112.50	147.00	0.42	2.04	53.75	1.00
12	DAVIS	2241.36	40.00	111.75	96.50	100.25	0.86	2.00	55.75	1.00
4	RANSOM	2173.85	28.00	110.00	70.25	105.50	0.24	2.03	41.25	1.00
16	ESSEX	2034.49	30.00	107.50	126.50	169.00	0.52	2.97	43.75	1.00
3	BRAGG	1931.59	29.00	95.25	47.00	78.00	0.25	1.34	43.75	1.00
8	BOSSIER	1850.62	28.75	111.75	125.00	147.75	0.49	2.01	41.00	1.00
9	WILLIAMS	1840.53	26.00	87.00	119.50	93.50	0.58	1.95	47.25	1.00
6	PICKETT 71	1797.44	30.00	99.25	28.00	46.75	0.14	0.97	38.50	1.00
5	HILL	1751.35	39.00	102.50	69.50	31.75	0.58	0.82	55.00	1.75
11	COBB	1658.08	33.00	110.75	51.25	63.00	0.36	1.11	48.75	1.00
10	CLARK 63	1520.30	26.00	90.50	94.50	106.25	0.53	2.02	50.75	1.00
14	FORREST	1501.63	33.00	104.50	49.75	66.25	0.14	1.50	45.75	1.00
13	IMPROVED PELICAN	1488.17	48.00	110.50	45.75	81.75	0.77	1.15	69.50	1.25
2	WOODWORTH	1476.21	25.00	84.00	99.25	55.00	0.58	1.71	41.00	1.00
7	CUTLER 71	1466.25	26.00	90.75	59.50	88.25	0.42	2.22	44.75	1.00
GRAND MEAN										
1845.73										
STANDARD ERROR OF A VARIETY MEAN										
237.75										
COEFFICIENT OF VARIATION										
25.76%										
5% LSD VARIETY MEANS (*****=NS)										

CORRELATIONS										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	-0.11	0.28+	0.33++	0.48++	0.25+	0.43++	0.36++	0.01
DAYS TO FLOWER		-0.11	1.00	0.55++	-0.19	-0.24	0.31+	-0.29+	0.56++	0.35++
DAYS TO MATURITY		0.28+	0.55++	1.00	-0.01	0.23	0.11	0.04	0.24	0.08
NODULE NUMBER 1		0.33++	-0.19	-0.01	1.00	0.48++	0.64++	0.48++	0.08	0.07
NODULE NUMBER 2		0.48++	-0.24	0.23	0.64++	1.00	0.23	0.75++	0.05	-0.12
NODULE WEIGHT 1		0.25+	0.31+	0.11	0.48++	0.23	1.00	0.37++	0.51++	0.31+
NODULE WEIGHT 2		0.43++	-0.29+	0.04	0.48++	0.75++	0.37++	1.00	0.10	-0.13
PLANT		0.36++	0.56++	0.24	0.08	0.05	0.51++	0.10	1.00	0.38++
HEIGHT		0.01	0.35++	0.08	0.07	-0.12	0.31+	-0.13	0.38++	1.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER		0.04	0.12	0.04	-0.05	-0.19	-0.02	-0.24	0.03	0.17
PLANTS		0.01	0.31+	0.41++	-0.05	0.07	0.09	-0.02	0.19	0.30+
PODS PER		0.72++	-0.49++	0.07	0.35++	0.57++	0.08	0.47++	-0.07	-0.15
100 SEED		0.44++	-0.36++	0.29+	0.21	0.51++	-0.03	0.42++	-0.12	-0.14
QUALITY	OF SEED									

TABLE 103 EXPERIMENT 186 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	1.00	268.50	8.40	20.80	4.00	40.6	21.5
15	COLUMBUS	1.00	270.00	7.90	19.51	2.50	41.5	22.1
12	DAVIS	1.00	314.00	10.20	19.77	2.50	41.8	20.9
4	RANSOM	1.00	315.75	8.30	20.06	3.00	39.1	24.3
16	ESSEX	1.00	279.00	9.95	18.03	3.25	41.8	20.9
3	BRAGG	1.00	298.75	7.22	19.64	2.00	39.4	23.0
8	BOSSIER	1.00	249.75	7.97	19.33	2.75	43.4	20.8
9	WILLIAMS	1.00	294.75	6.87	18.96	1.75	39.7	22.5
6	PICKETT 71	1.00	264.75	10.43	17.00	2.25	39.3	22.3
5	HILL	1.00	337.50	8.42	15.58	1.75	37.8	21.1
11	COBB	1.00	293.00	9.97	16.37	2.00	38.2	22.4
10	CLARK 63	1.00	328.25	6.95	17.01	2.25	36.7	23.1
14	FORREST	1.00	306.75	7.07	14.80	1.75	39.8	21.5
13	IMPROVED PELICAN	1.00	256.25	9.67	13.23	1.25	41.9	21.4
2	WOODWORTH	1.00	269.25	5.50	15.69	1.75	39.4	21.2
7	CUTLER 71	1.00	229.75	8.75	18.85	2.50	39.1	23.1
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	286.00	8.35	17.79	2.33		
COEFFICIENT OF VARIATION		0.00	19.29	1.01	0.69	0.32		
5% LSD VARIETY MEANS (*****=NS)		0.00%	13.49%	24.20%	7.77%	27.60%		
		0.00	54.95	2.88	1.97	0.92		
C O R R E L A T I O N S (+ - PROB=-.05) ++ - PROB=-.01)								
YIELD	KG/HA	0.00	0.04	0.01	0.72++	0.44++		
DAYS TO FLOWER		0.00	0.12	0.31+	-0.49++	-0.36++		
DAYS TO MATURITY		0.00	0.04	0.41++	0.07	0.29+		
NODULE NUMBER 1		0.00	-0.05	-0.05	0.35++	0.21		
NODULE NUMBER 2		0.00	-0.19	0.07	0.57++	0.51++		
NODULE WEIGHT 1		0.00	-0.02	0.09	0.08	-0.03		
NODULE WEIGHT 2		0.00	-0.24	-0.02	0.47++	0.42++		
PLANT HEIGHT		0.00	0.03	0.19	-0.07	-0.12		
LODGING		0.00	0.17	0.30+	-0.15	-0.14		
SHATTER		1.00	0.00	0.00	0.00	0.00		
HARVEST		0.00	1.00	-0.14	-0.05	-0.13		
PLANTS PER PLANT		0.00	-0.14	1.00	0.12	0.01		
100 SEED WEIGHT		0.00	-0.05	0.01	1.00	0.55++		
QUALITY OF SEED		0.00	-0.13	0.12	0.55++	1.00		

TABLE 104 EXPERIMENT 367 YEAR 1976

REGION - ASIA
 SITE - JOYDEVPUR
 LATITUDE - 24 DEG. N
 COOPERATORS - A. SOBHAN, M.Z. HOQUE, P.R. HOBBS, N.I. MIAH
 DATE PLANTED - OCTOBER 15, 1976
 SOIL TYPE - SAND 26%, SILT 44%, CLAY 30%, PH 7.7
 FERTILIZER USED (KG/HA) - N 20.0, P 26.4, K 33.2
 AMOUNT OF MOISTURE - 2829 MM
 NUMBER OF IRRIGATIONS - 5 (2286 MM)

COUNTRY - BANGLADESH
 ELEVATION - 8 M
 LONGITUDE - 90 DEG. E
 DATE HARVESTED - JANUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	BOSSIER	3155.15	28.00	88.00	54.00	78.50	0.27	1.33	30.65	1.00
10	WILLIAMS	2820.84	31.00	84.00	58.50	88.75	0.31	1.41	38.95	1.00
11	WOODWORTH	2787.75	31.00	80.00	35.75	46.00	0.16	0.94	40.99	1.00
12	CLARK 63	2712.95	30.00	89.00	38.00	53.75	0.16	1.05	39.14	1.00
13	DAVIS	2655.58	29.00	89.00	49.25	70.50	0.23	1.22	41.18	1.00
14	FORREST	2623.79	25.00	84.00	25.50	46.75	0.10	0.82	42.74	1.00
15	CALLAND	2617.62	28.00	87.00	31.25	40.00	0.12	0.80	38.81	1.00
16	IMPROVED PELICAN	2602.62	31.00	90.00	35.50	58.75	0.16	1.13	51.39	1.00
17	PICKETT 71	2565.51	27.00	87.00	30.25	42.75	0.12	0.91	30.98	1.00
18	CUTLER 71	2555.67	29.00	87.00	51.25	63.75	0.24	1.23	48.04	1.00
19	BRAGG	2439.58	27.00	87.00	44.00	53.75	0.19	1.04	33.00	1.00
20	RANSOM	2419.20	26.00	87.00	64.75	80.75	0.29	1.26	41.28	1.00
21	COBB	2402.46	26.00	88.00	54.50	83.75	0.26	1.35	29.33	1.00
22	COLUMBUS	2364.37	29.00	90.00	59.25	91.50	0.31	1.43	42.92	1.00
23	HILL	2303.62	29.00	90.00	42.00	58.75	0.17	1.12	36.00	1.00
24	JUPITER	1953.62	41.00	98.75	46.00	58.25	0.20	1.13	48.73	3.00
25	GRAND MEAN	2561.27	29.19	87.86	44.98	63.52	0.20	1.13	39.63	1.13
26	STANDARD ERROR OF A VARIETY MEAN	6.13	0.00	0.06	0.97	0.86	0.01	0.02	0.16	0.00
27	COEFFICIENT OF VARIATION	0.48%	0.00%	0.14%	4.33%	2.71%	12.32%	3.27%	0.81%	0.00%
28	5% LSD VARIETY MEANS (*****=NS)	17.47	0.00	0.18	2.78	2.45	0.04	0.05	0.45	0.00

C O R R E L A T I O N S
 (+ - PROB=.05 ++ - PROB=.01)

YIELD	1.00	-0.40++	-0.64++	-0.07	0.04	0.03	0.01	-0.29+	-0.61++
DAYS TO FLOWER	-0.40++	1.00	0.63++	0.03	-0.05	0.03	0.10	0.52++	0.86++
DAYS TO MATURITY	-0.64++	0.63++	1.00	0.16	0.12	0.10	0.23	0.28+	0.74++
NODULE NUMBER 1	-0.07	0.03	0.16	1.00	0.91++	0.95++	0.90++	-0.05	0.02
NODULE NUMBER 2	0.04	-0.05	0.12	0.91++	1.00	0.91++	0.96++	-0.07	-0.08
NODULE WEIGHT 1	0.03	0.03	0.10	0.95++	0.91++	1.00	0.90++	-0.04	-0.02
NODULE WEIGHT 2	-0.01	0.10	0.23	0.90++	0.96++	0.90++	1.00	-0.02	-0.00
PLANT HEIGHT	-0.29+	0.52++	0.28+	-0.05	-0.07	-0.04	-0.02	0.37++	1.00
LODGING	-0.61++	0.86++	0.74++	0.02	-0.08	-0.02	-0.00	0.37++	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.31+	-0.34++	-0.20	0.13	0.00	0.08	0.15	-0.40++	-0.27+
PODS PER PLANT	0.26+	0.12	0.01	0.03	0.08	0.08	0.14	0.33++	0.02
100 SEED WEIGHT	0.35++	-0.34++	-0.25+	0.39++	0.30+	0.40++	0.34++	-0.55++	-0.50++
QUALITY OF SEED	-0.61++	0.86++	0.74++	0.02	-0.08	-0.02	-0.00	0.37++	1.00++

TABLE 104 EXPERIMENT 367 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
9	BOSSIER	1.00	217.00	20.08	14.00	1.00
10	WILLIAMS	1.00	181.50	19.15	14.03	1.00
2	WOODWORTH	1.00	174.75	16.30	13.63	1.00
11	CLARK 63	1.00	177.25	17.75	14.02	1.00
13	DAVIS	1.00	219.25	13.93	14.03	1.00
15	FORREST	1.00	187.75	17.85	12.41	1.00
14	CALLAND	1.00	130.75	15.13	14.01	1.00
6	IMPROVED PELICAN	1.00	176.75	23.00	13.00	1.00
7	PICKETT 71	1.00	188.50	16.88	14.02	1.00
3	CUTLER 71	1.00	176.25	19.05	14.00	1.00
4	BRAGG	1.00	198.25	16.35	14.04	1.00
12	RANSON	1.00	200.00	18.03	13.63	1.00
16	COBB	1.00	202.75	15.35	14.01	1.00
5	COLUMBUS	1.00	119.50	15.75	14.00	1.00
8	HILL	1.00	200.75	14.95	13.58	1.00
	JUPITER	1.00	149.25	17.48	12.71	2.00
GRAND MEAN						
	STANDARD ERROR OF A VARIETY MEAN	1.00	181.27	17.31	13.69	1.06
	COEFFICIENT OF VARIATION	0.00	8.01	0.92	0.02	0.00
	5% 1ST VARIETY MEANS (*****=NS)	0.00	8.83%	10.62%	0.24%	0.00%
		0.00	22.81	2.62	0.05	0.00
C O R R E L A T I O N S						
			(+ - PROB=.05		++ - PROB=.01)	
YIELD	KG/HA	0.00	0.31+	0.26+	0.35++	-0.61++
DAYS TO FLOWER		0.00	-0.34++	0.12	-0.34++	0.86++
DAYS TO MATURITY		0.00	-0.20	0.01	-0.25+	0.74++
NODULE NUMBER 1		0.00	0.13	0.03	0.39++	0.02
NODULE NUMBER 2		0.00	0.13	0.08	0.30+	-0.08
NODULE WEIGHT 1		0.00	0.08	0.08	0.40++	-0.02
NODULE WEIGHT 2		0.00	0.15	0.14	0.34++	-0.00
PLANT		0.00	-0.40++	0.33++	-0.55++	0.37++
HEIGHT		0.00	-0.27+	0.02	-0.50++	1.00++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	1.00	0.05	0.10	-0.27+
HARVEST		0.00	0.05	1.00	-0.26+	0.02
PLANTS		0.00	0.10	-0.26+	1.00	-0.50++
PODS PER		0.00	-0.27+	0.02	-0.50++	1.00
100 SEED		0.00				
QUALITY		0.00				

TABLE 105

EXPERIMENT 154

YEAR 1976

REGION - ASIA
 SITE - KASHIMPUR
 LATITUDE - 24 DEG. N
 COOPERATORS - A. SOBHAN, M.Z. HOQUE, P.R. HOBBS
 DATE PLANTED - JANUARY 22, 1977
 SOIL TYPE - SAND 1.5%, SILT 37%, CLAY 61.5%, PH 5.0
 FERTILIZER USED (KG/HA) - N 20.0, P 26.4, K 33.2
 AMOUNT OF MOISTURE - 520 MM
 NUMBER OF IRRIGATIONS - 3 (76 MM)

COUNTRY - BANGLADESH
 ELEVATION - 8 M
 LONGITUDE - 90 DEG. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	COLUMBUS	1720.00	33.75	98.00	16.00	22.25	0.06	0.23	34.73	1.00
7	CUTLER 71	1650.00	31.50	101.00	16.50	22.25	0.06	0.24	32.86	1.00
12	FORREST	1640.00	34.50	106.75	14.75	20.00	0.05	0.22	41.44	1.25
6	PICKETT 71	1640.00	40.00	97.75	18.50	25.25	0.07	0.28	31.37	1.00
9	WILLIAMS	1610.00	36.75	101.00	19.50	24.50	0.07	0.26	33.17	1.25
14	BEESON	1605.00	37.75	101.25	15.50	21.00	0.06	0.22	42.12	1.00
8	BOSSIER	1600.00	35.25	106.75	17.75	24.75	0.29	0.25	29.96	1.25
10	CLARK 63	1595.00	36.50	106.75	14.50	21.00	0.06	0.23	42.40	1.00
4	RANSOM	1545.00	40.00	107.50	17.50	24.00	0.31	0.26	39.06	1.75
16	ESSEX	1535.00	37.75	106.75	15.50	20.75	0.06	0.21	41.11	1.25
11	CALLAND	1465.00	36.50	106.00	14.75	19.75	0.06	0.20	44.52	1.00
11	DAVIS	1455.00	34.75	97.50	16.50	23.50	0.06	0.26	36.68	1.25
5	HILL	1445.00	34.50	98.50	15.25	20.50	0.05	0.22	32.80	1.50
13	WELLS	1425.00	32.75	100.75	19.75	28.50	0.07	0.28	45.20	1.25
3	BRAGG	1385.00	31.00	100.50	14.00	19.25	0.04	0.20	29.91	1.00
2	WOODWORTH	1220.00	34.75	97.50	13.75	18.25	0.04	0.19	43.03	1.00
	GRAND MEAN	1533.44	35.50	102.14	16.25	22.22	0.09	0.23	37.52	1.17
	STANDARD ERROR OF A VARIETY MEAN	149.61	0.30	0.37	2.76	3.32	0.09	0.03	1.26	0.18
	COEFFICIENT OF VARIATION	19.51%	1.67%	0.72%	33.98%	29.88%	191.33%	29.89%	6.70%	31.36%
	5% LSD VARIETY MEANS (*****=NS)	*****	0.84	1.05	*****	*****	*****	*****	3.58	*****
C O R R E L A T I O N S										
	YIELD	KG/HA								
	DAYS TO FLOWER	0.11	0.12	0.16	0.13	0.07	0.10	0.13	-0.03	-0.11
	DAYS TO MATURITY	0.11	0.31+	0.12	0.11	0.13	0.16	0.13	0.17	0.15
	NODULE NUMBER 1	0.12	0.31+	-0.04	-0.02	-0.04	0.20	-0.04	0.29+	0.17
	NODULE NUMBER 2	0.13	0.11	1.00	0.93++	0.93++	0.48++	0.91++	0.05	-0.13
	NODULE WEIGHT 1	0.10	0.16	0.20	0.48++	0.49++	1.00	0.53++	0.02	-0.08
	NODULE WEIGHT 2	0.07	0.13	-0.04	0.91++	0.97++	0.53++	1.00	-0.02	0.14
	PLANT HEIGHT	-0.03	0.17	0.29+	0.05	0.02	-0.02	-0.02	1.00	-0.06
	LODGING	-0.11	0.15	0.17	-0.13	-0.08	0.14	-0.06	-0.08	1.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HARVEST	0.57++	0.03	0.04	0.16	0.21	-0.03	0.22	-0.01	-0.02
	PLANTS PER PLANT	0.60++	0.06	0.12	-0.02	-0.06	-0.03	-0.06	-0.12	-0.03
	100 SEED WEIGHT	0.05	0.11	-0.17	-0.08	-0.12	-0.08	-0.09	-0.05	-0.01
	QUALITY OF SEED	-0.08	-0.06	-0.10	-0.17	-0.13	-0.25+	-0.16	-0.15	0.15

(+ - PROB=.05 +- - PROB=.01)

TABLE 105 EXPERIMENT 154 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	COLUMBUS	1.00	192.25	24.75	13.23	2.50
7	CUTLER 71	1.00	186.00	22.00	13.26	3.50
12	FORREST	1.00	179.50	23.00	13.11	3.50
6	PICKETT 71	1.00	175.50	21.00	13.15	3.50
9	WILLIAMS	1.00	177.25	21.75	13.20	4.25
14	BEESON	1.00	186.50	20.25	14.36	3.50
8	BOSSIER	1.00	163.50	22.00	13.16	2.75
10	CLARK 63	1.00	179.25	22.00	13.28	2.75
4	RANSOM	1.00	169.75	24.25	13.09	3.25
16	ESSEX	1.00	171.25	19.50	13.18	3.75
1	CALLAND	1.00	176.25	18.25	13.14	3.00
11	DAVIS	1.00	163.75	19.50	13.09	3.50
5	HILL	1.00	174.75	19.25	14.05	3.50
13	WELLS	1.00	168.75	16.50	12.95	3.25
3	BRAGG	1.00	163.25	20.25	13.21	4.25
2	WOODWORTH	1.00	149.50	20.25	13.07	3.50
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	173.56	20.91	13.28	3.39
COEFFICIENT OF VARIATION		0.00	8.59	1.84	0.01	0.49
5% LSL VARIETY MEANS (*****=NS)		0.00	9.90	17.61	0.12	29.19
C O R R E L A T I O N S (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.00	0.57++	0.60++	0.05	-0.08
DAYS TO FLOWER		0.00	0.03	0.06	0.11	-0.06
DAYS TO MATURITY		0.00	0.04	0.12	-0.17	-0.10
NODULE NUMBER 1		0.00	0.16	-0.02	-0.08	-0.17
NODULE NUMBER 2		0.00	0.21	-0.06	-0.12	-0.13
NODULE WEIGHT 1		0.00	-0.03	0.17	-0.08	-0.25+
NODULE WEIGHT 2		0.00	0.22	-0.06	-0.09	-0.16
PLANT HEIGHT		0.00	-0.01	-0.12	-0.05	-0.15
LODGING		0.00	-0.02	-0.03	-0.01	0.15
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.28+	0.22	-0.03
PODS PER PLANT		0.00	0.28+	1.00	-0.05	-0.14
100 SEED WEIGHT		0.00	0.22	-0.05	1.00	0.04
QUALITY OF SEED		0.00	-0.03	-0.14	0.04	1.00

TABLE 106 EXPERIMENT 50 YEAR 1976

REGION - ASIA COUNTRY - BANGLADESH
 SITE - MYMENSINGH ELEVATION - 18 M
 LATITUDE - 24 DEG. N LONGITUDE - 90 DEG. E
 COOPERATORS - A. J. MIAH, B. H. SIKDER, A. MANSUR
 DATE PLANTED - NOVEMBER 3, 1976 DATE HARVESTED - FEBRUARY, 1977
 SOIL TYPE - SAND 10.14%, SILT 65.51%, CLAY 24.35%, PH 6.8
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	BOSSIER	967.28	35.00	92.00	94.00	170.00	0.62	1.46	21.31	1.00
4	RANSOM	842.67	36.00	97.00	184.00	231.50	1.05	1.51	23.18	1.00
12	DAVIS	828.29	38.00	99.00	65.25	129.00	0.56	1.00	23.85	1.00
16	ESSEX	809.33	34.00	98.00	110.50	134.75	0.65	0.97	22.74	1.00
14	FORREST	789.53	36.00	96.00	59.75	113.75	0.47	1.01	27.81	1.00
3	BAGG	766.82	37.00	92.00	130.75	213.00	0.90	1.53	25.24	1.00
15	COLUMBUS	752.86	35.00	101.00	129.50	223.75	0.95	1.77	22.18	1.00
11	COBB	732.65	36.00	97.00	95.00	155.25	0.74	1.18	22.83	1.00
5	HILL	732.02	39.00	96.00	120.25	146.50	0.64	1.03	24.21	1.00
6	PICKETT 71	643.25	35.00	91.00	91.00	158.25	0.49	1.18	16.78	1.00
1	CALLAND	633.46	33.00	99.00	100.50	224.50	0.78	1.59	21.77	1.00
10	CLARK 63	625.12	32.00	99.00	74.25	108.25	0.38	0.87	20.63	1.00
9	WILLIAMS	623.46	32.00	97.00	99.00	126.50	0.68	0.89	19.10	1.00
2	WOODNORTH	594.70	31.00	98.00	99.00	167.00	0.71	1.24	18.05	1.00
7	CUTLER 71	590.16	32.00	98.00	87.75	140.00	0.48	1.04	22.32	1.00
13	IMPROVED PELICAN	544.90	41.00	106.00	74.75	138.50	0.38	1.35	30.77	1.00
	GRAND MEAN	717.28	35.13	97.25	100.95	161.28	0.65	1.22	22.67	1.00
	STANDARD ERROR OF A VARIETY MEAN	38.93	0.32	0.00	3.50	13.37	0.03	0.11	1.30	0.00
	COEFFICIENT OF VARIATION	10.85%	1.84%	0.00%	6.94%	16.58%	9.04%	17.60%	11.45%	0.00%
	5% LSE VARIETY MEANS (*****NS)	110.89	0.92	0.00	9.98	38.08	0.08	0.31	3.70	0.00

CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1.00	0.21	-0.38++	0.17	0.14	0.26+	0.12	0.24	0.00
0.21	1.00	0.17	0.03	0.01	-0.03	0.17	0.63++	0.00
-0.38++	0.17	1.00	-0.17	-0.10	-0.15	0.03	0.37++	0.00
0.17	0.03	-0.17	1.00	0.64++	0.84++	0.44++	-0.13	0.00
0.14	0.01	-0.10	0.64++	1.00	0.73++	0.83++	-0.05	0.00
0.26+	-0.03	-0.15	0.84++	0.73++	1.00	0.59++	-0.13	0.00
0.12	0.17	0.03	0.44++	0.83++	0.59++	1.00	0.05	0.00
0.24	0.63++	0.37++	-0.13	-0.05	-0.13	0.05	1.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.26+	-0.22	-0.15	0.09	0.17	0.12	0.06	0.13	0.00
0.44++	0.55++	0.03	-0.02	-0.15	-0.15	0.00	0.44++	0.00
0.07	-0.45++	0.02	0.09	0.30+	0.43++	0.20	-0.16	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 106 EXPERIMENT 50 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BOSSIER	1.00	247.25	11.35	12.69	3.00	44.2	16.1
4	RANSOM	1.00	263.50	9.65	13.06	3.00	41.7	17.2
12	DAVIS	1.00	255.00	9.70	13.41	3.00	43.0	18.0
16	ESSEX	1.00	262.00	11.58	12.02	3.00	43.7	16.2
14	FORREST	1.00	257.00	10.83	12.56	3.00	38.7	18.6
3	BRAGG	1.00	272.75	8.72	13.80	3.00	43.3	16.6
15	COLUMBUS	1.00	248.00	9.97	14.28	3.00	46.3	15.8
11	COBB	1.00	265.25	9.47	13.98	3.00	40.9	16.5
5	HILL	1.00	255.00	12.98	9.64	3.00	40.5	17.7
6	PICKETT 71	1.00	248.75	9.62	11.21	3.00	41.6	17.7
1	CALLAND	1.00	272.00	7.80	14.25	3.00	44.5	16.8
10	CLARK 63	1.00	256.25	8.42	12.33	3.00	44.3	16.2
9	WILLIAMS	1.00	243.00	7.25	14.58	3.00	43.4	17.4
2	WOODWORTH	1.00	267.50	8.40	12.54	3.00	43.0	16.9
7	CUTLER 71	1.00	272.25	9.45	13.77	3.00	43.8	16.6
13	IMPROVED PELICAN	1.00	233.25	11.48	11.01	3.00	46.7	15.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	257.42	9.79	12.82	3.00		
COEFFICIENT OF VARIATION		0.00	10.10	0.59	0.12	0.00		
5% LSD VARIETY MEANS (*****=NS)		0.00	7.85%	12.12%	1.93%	0.00%		
		0.00	*****	1.69	0.35	0.00		
C O R R E L A T I O N S								
			(+ - PROB=.05		+ - PROB=.01)			
YIELD	KG/HA	0.00	0.26+	0.44++	0.07	0.00		
DAYS TO FLOWER		0.00	-0.22	0.55++	-0.45+	0.00		
DAYS TO MATURITY		0.00	-0.15	0.03	0.02	0.00		
NODULE NUMBER 1		0.00	0.09	-0.02	0.09	0.00		
NODULE NUMBER 2		0.00	0.17	-0.15	0.30+	0.00		
NODULE WEIGHT 1		0.00	0.12	-0.15	0.43+	0.00		
NODULE WEIGHT 2		0.00	0.06	0.00	0.20	0.00		
PLANT	HEIGHT	0.00	0.13	0.44++	-0.16	0.00		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS	HARVEST	0.00	1.00	-0.13	0.19	0.00		
PODS PER	PLANT	0.00	-0.13	1.00	-0.56++	0.00		
100 SEED	WEIGHT	0.00	0.19	-0.56++	1.00	0.00		
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00		

TABLE 107 EXPERIMENT 153 YEAR 1976

REGION - ASIA
 SITE - PABNA
 COUNTRY - BANGLADESH
 LATITUDE - 24 DEG. 3 MIN. N ELEVATION - 20-25 M
 COOPERATORS - M.A.H. SARKER, E. NAFZIGER LONGITUDE - 89 DEG. 15 MIN. E
 DATE PLANTED - JANUARY 7, 1977 DATE HARVESTED - MAY, 1977
 SOIL TYPE - SAND 26.34%, SILT 40.70%, CLAY 32.96%, PH 7.7
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 360 MM
 NUMBER OF IRRIGATIONS - 1 (50 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	DAVIS	2907.66	57.00	119.25	117.25	125.25	0.00	2.01	60.95	3.50
16	ESSEX	2760.14	48.25	116.25	88.50	165.50	0.00	2.48	45.50	1.50
15	COLUMBUS	2740.96	40.25	113.75	103.25	181.00	0.00	2.57	51.70	1.75
12	FOREST	2718.88	55.50	117.75	100.75	166.75	0.00	2.15	72.45	3.25
7	CUTLER 71	2519.25	41.50	111.25	96.50	199.50	0.00	2.39	51.25	1.75
5	HILL	2285.87	56.75	117.00	75.25	80.00	0.00	1.27	56.35	3.25
1	CALLAND	2279.62	40.00	111.25	88.75	102.25	0.00	1.51	50.60	2.25
3	BRAGG	2217.94	47.00	114.25	63.50	193.00	0.00	2.34	41.60	1.00
9	WILLIAMS	2208.36	40.25	105.00	88.75	143.00	0.00	1.82	43.50	1.25
4	RANSON	2132.09	40.25	109.25	79.00	144.50	0.00	1.38	29.00	1.00
2	WOODWORTH	2044.99	40.50	102.50	74.25	93.50	0.00	1.01	41.90	1.00
10	CLARK 63	2012.90	40.00	110.00	69.25	63.75	0.00	1.21	45.25	2.25
8	BOSSIER	2007.90	40.75	111.25	80.25	125.00	0.00	2.02	30.70	1.00
14	BEESON	1977.06	41.25	101.75	68.00	94.00	0.00	1.27	41.60	1.25
6	PICKETT 71	1665.75	42.25	113.00	67.75	94.25	0.00	1.01	29.85	1.00
13	WELLS	1587.82	40.50	100.00	70.25	92.00	0.00	0.91	32.10	1.00
GRAND MEAN		2254.20	44.50	110.84	83.20	128.95	0.00	1.71	45.27	1.75
STANDARD ERROR OF A VARIETY MEAN		168.51	0.57	1.04	14.15	18.64	0.00	0.28	2.38	0.25
COEFFICIENT OF VARIATION		14.95%	2.54%	1.88%	34.00%	28.90%	0.00%	32.48%	10.50%	28.41%
5% LSD VARIETY MEANS (*****=NS)		479.98	1.61	2.97	*****	53.08	0.00	0.79	6.77	0.71

C O R R E L A T I O N S (+ - PROB=.05 ** - PROB=.01)

YIELD	KG/HA	1.00	0.43++	0.57++	0.47++	0.51++	0.00	0.56++	0.65++	0.47++
DAYS TO FLOWER	0.43++	1.00	0.69++	0.69++	0.19	0.08	0.00	0.21	0.64++	0.66++
DAYS TO MATURITY	0.57++	0.69++	1.00	1.00	0.24	0.32++	0.00	0.45++	0.53++	0.54++
NODULE NUMBER 1	0.47++	0.19	0.24	1.00	0.35++	0.00	0.00	0.34++	0.38++	0.34++
NODULE NUMBER 2	0.51++	0.08	0.32++	0.35++	1.00	0.00	0.00	0.86++	0.20	0.09
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.56++	0.21	0.45++	0.34++	0.86++	0.00	1.00	0.30+	0.30+	0.19
PLANT HEIGHT	0.65++	0.64++	0.53++	0.38++	0.20	0.00	0.00	0.77++	1.00	0.77++
LODGING	0.47++	0.66++	0.54++	0.34++	0.09	0.00	0.00	0.19	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	-0.07	0.19	-0.29+	-0.06	-0.36++	0.00	0.00	-0.32++	0.19	0.18
PODS PER PLANT	0.48++	0.73++	0.73++	0.40++	0.23	0.00	0.00	0.38++	0.53++	0.53++
100 SEED WEIGHT	0.31+	-0.31+	-0.00	0.21	0.36++	0.00	0.00	0.35++	0.06	-0.03
QUALITY OF SEED	0.37++	0.49++	0.32+	0.17	-0.01	0.00	0.00	0.16	0.55++	0.51++

TABLE 107 EXPERIMENT 153 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	DAVIS	0.00	325.75	23.43	16.85	4.50	43.1	22.2
16	ESSEX	0.00	277.00	20.48	16.13	5.00	46.5	20.3
15	COLUMBUS	0.00	271.75	16.40	18.85	4.00	45.2	21.9
12	FORREST	0.00	296.50	21.25	15.30	4.75	45.1	19.1
7	CUTLER 71	0.00	250.50	13.15	17.80	4.00	44.2	22.7
5	HILL	0.00	331.00	18.65	15.00	5.00	41.5	20.2
1	CALLAND	0.00	302.50	14.40	20.00	4.75	44.3	22.1
3	BAGG	0.00	291.00	15.15	18.75	3.25	45.1	22.4
9	WILLIAMS	0.00	313.00	12.45	18.83	2.75	42.5	24.4
4	RANSOM	0.00	297.75	12.68	17.25	2.75	42.2	24.0
2	WOODWORTH	0.00	315.50	11.05	16.30	3.25	41.8	24.6
10	CLARK 63	0.00	309.75	12.00	17.43	3.50	41.3	24.7
8	BOSSIER	0.00	238.00	13.98	16.28	2.75	45.0	21.7
14	BEESON	0.00	316.25	11.60	18.48	4.50	45.9	21.0
6	PICKETT 71	0.00	238.25	15.50	15.25	2.75	44.1	22.4
13	WELLS	0.00	356.75	9.37	13.80	4.00	41.2	24.8
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	295.70	15.10	17.02	3.84		
COEFFICIENT OF VARIATION		0.00%	9.40	1.42	0.49	0.28		
5% LSD VARIETY MEANS (*****=NS)		0.00	6.36%	18.83%	5.73%	14.48%		
			26.76	4.05	1.39	0.79		
C O R R E L A T I O N S								
			(+ - PROB=.05	+ - - PROB=.01)				
YIELD	KG/HA	0.00	-0.07	0.48++	0.31+	0.37++		
DAYS TO FLOWER		0.00	0.19	0.73++	-0.31+	0.49++		
DAYS TO MATURITY		0.00	-0.29+	0.73++	-0.00	0.32+		
NODULE NUMBER 1		0.00	-0.06	0.40++	0.21	0.17		
NODULE NUMBER 2		0.00	-0.36++	0.23	0.36++	-0.01		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	-0.32++	0.38++	0.35++	0.16		
PLANT	HEIGHT	0.00	0.19	0.53++	0.06	0.55++		
LODGING		0.00	0.18	0.55++	-0.03	0.51++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.14	-0.15	0.27+		
PODS PER PLANT		0.00	-0.14	1.00	-0.10	0.43++		
100 SEED WEIGHT		0.00	-0.15	-0.10	1.00	-0.01		
QUALITY OF SEED		0.00	0.27+	0.43++	-0.01	1.00		

TABLE 108

EXPERIMENT 181

YEAR 1976

REGION - ASIA
SITE - JABALPUR
LATITUDE - 23 DEG. 10 MIN. N
COOPERATORS - S.M. SHARMA, S.K. MEHTA
DATE PLANTED - JULY 19, 1976
SOIL TYPE - CLAY LOAM, PH 7.3
FERTILIZER USED (KG/HA) - N 11.25, P 4.80
AMOUNT OF MOISTURE - 926 MM
LOCAL VARIETY - J.S.2

COUNTRY - INDIA
ELEVATION - 393 M
LONGITUDE - 79 DEG. 57 MIN. E
DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	COBB	1264.91	37.75	91.00	0.00	0.00	0.00	0.00	29.05	0.00
9	WILLIAMS	1247.05	25.50	79.00	0.00	0.00	0.00	0.00	32.90	0.00
13	IMPROVED PELICAN	1172.64	40.25	89.75	0.00	0.00	0.00	0.00	51.15	0.00
4	RANSOM	1169.67	34.75	90.00	0.00	0.00	0.00	0.00	35.35	0.00
8	BOSSIER	1065.50	35.00	86.75	0.00	0.00	0.00	0.00	33.80	0.00
12	DAVIS	1035.73	37.75	86.25	0.00	0.00	0.00	0.00	35.45	0.00
7	J.S.2	1017.88	36.00	80.25	0.00	0.00	0.00	0.00	37.65	0.00
10	CLARK 63	1011.92	26.25	79.00	0.00	0.00	0.00	0.00	35.10	0.00
6	PICKETT 71	988.11	34.25	85.50	0.00	0.00	0.00	0.00	30.85	0.00
16	ESSEX	982.16	33.75	82.25	0.00	0.00	0.00	0.00	32.25	0.00
14	FORREST	934.54	34.75	89.00	0.00	0.00	0.00	0.00	35.05	0.00
2	WOODWORTH	934.54	29.75	80.00	0.00	0.00	0.00	0.00	30.60	0.00
5	HILL	916.68	36.50	81.00	0.00	0.00	0.00	0.00	39.95	0.00
15	COLUMBUS	877.99	30.25	79.75	0.00	0.00	0.00	0.00	35.65	0.00
3	BAGG	836.33	35.25	85.75	0.00	0.00	0.00	0.00	42.20	0.00
1	CALLAND	738.11	26.25	78.50	0.00	0.00	0.00	0.00	32.15	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1012.11	33.38	83.98	0.00	0.00	0.00	0.00	35.57	0.00
COEFFICIENT OF VARIATION		92.90	0.49	1.52	0.00	0.00	0.00	0.00	2.82	0.00
5% LST VARIETY MEANS (*****=NS)		18.36%	2.91%	3.62%	0.00%	0.00%	0.00%	0.00%	15.85%	0.00%
		264.62	1.38	4.33	0.00	0.00	0.00	0.00	8.03	0.00
C O R R E L A T I O N S										
(+ - PROB=-.05 +- - PROB=-.01)										
YIELD	KG/HA	1.00	0.16	0.28+	0.00	0.00	0.00	0.00	0.09	0.00
DAYS TO FLOWER	0.16	0.28+	1.00	0.62++	0.00	0.00	0.00	0.00	0.32++	0.00
DAYS TO MATURITY	0.28+	0.62++	1.00	1.00	0.00	0.00	0.00	0.00	0.02	0.00
NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.09	0.32++	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.20	0.16	0.24	0.00	0.00	0.00	0.00	0.00	0.07	0.00
PLANTS PER PLANT	0.24	0.55++	0.25+	0.00	0.00	0.00	0.00	0.00	0.48++	0.00
PODS PER 100 SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 108 EXPERIMENT 181 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	COBB	0.00	189.50	14.55	0.00	0.00
9	WILLIAMS	0.00	177.00	10.05	0.00	0.00
13	IMPROVED PELICAN	0.00	195.00	17.10	0.00	0.00
4	RANSON	0.00	199.50	10.70	0.00	0.00
8	BOSSIER	0.00	159.25	13.90	0.00	0.00
12	DAVIS	0.00	191.50	10.35	0.00	0.00
7	J.S.2	0.00	152.50	16.50	0.00	0.00
10	CLARK 63	0.00	172.75	9.30	0.00	0.00
6	PICKETT 71	0.00	190.50	11.65	0.00	0.00
16	ESSEX	0.00	178.50	12.70	0.00	0.00
14	FORREST	0.00	204.50	10.00	0.00	0.00
2	WOODWORTH	0.00	182.50	7.20	0.00	0.00
5	HILL	0.00	195.50	11.40	0.00	0.00
15	COLUMBUS	0.00	186.25	9.50	0.00	0.00
3	BRAGG	0.00	180.50	15.15	0.00	0.00
1	CALLAND	0.00	171.50	8.45	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	182.92	11.78	0.00	0.00
COEFFICIENT OF VARIATION		0.00	14.21	1.23	0.00	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	15.54	20.84	0.00	0.00
		0.00	*****	3.50	0.00	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		+ - PROB=.01)		
YIELD KG/HA		0.00	0.20	0.24	0.00	0.00
DAYS TO FLOWER		0.00	0.16	0.55+	0.00	0.00
DAYS TO MATURITY		0.00	0.24	0.25+	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.07	0.48+	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	-0.17	0.00	0.00
PODS PER PLANT		0.00	-0.17	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 109 EXPERIMENT 45 YEAR 1976

REGION - ASIA
 SITE - PANTNAGAR
 LATITUDE - 29 DEG. 5 MIN. N
 COOPERATOR - B.B. SINGH
 DATE PLANTED - JULY 6, 1976
 SOIL TYPE - SANDY LOAM, PH 6.8
 FERTILIZER USED (KG/HA) - N 20.0
 AMOUNT OF MOISTURE - 1272 MM
 LOCAL VARIETY - PK-71-21

COUNTRY - INDIA
 ELEVATION - 243 M
 LONGITUDE - 79 DEG. 3 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	CUTLER 71	1875.37	48.00	107.00	0.00	0.00	0.00	0.00	58.48	0.00
11	COBB	1864.96	48.00	114.00	0.00	0.00	0.00	0.00	68.75	0.00
12	DAVIS	1864.96	45.50	102.25	0.00	0.00	0.00	0.00	67.35	0.00
2	WOODWORTH	1771.19	36.00	90.00	0.00	0.00	0.00	0.00	68.72	0.00
1	CALLAND	1719.09	36.50	90.25	0.00	0.00	0.00	0.00	78.35	0.00
14	FORREST	1594.07	38.00	95.75	0.00	0.00	0.00	0.00	62.95	0.00
8	PK-71-21	1541.97	44.50	109.50	0.00	0.00	0.00	0.00	66.00	0.00
10	CLARK 63	1531.56	37.00	90.75	0.00	0.00	0.00	0.00	58.03	0.00
9	WILLIAMS	1469.04	35.75	90.75	0.00	0.00	0.00	0.00	72.02	0.00
6	PICKETT 71	1458.62	40.00	102.75	0.00	0.00	0.00	0.00	56.05	0.00
3	BRAGG	1458.62	41.75	106.75	0.00	0.00	0.00	0.00	69.10	0.00
5	HILL	1437.79	37.50	94.50	0.00	0.00	0.00	0.00	57.90	0.00
15	ESSEX	1437.79	39.50	112.25	0.00	0.00	0.00	0.00	50.53	0.00
4	RANSOM	1146.06	53.00	109.75	0.00	0.00	0.00	0.00	66.25	0.00
13	IMPROVED PELICAN	1580.18	41.40	100.45	0.00	0.00	0.00	0.00	76.35	0.00
	GRAND MEAN	227.19	0.46	0.39	0.00	0.00	0.00	0.00	65.12	0.00
	STANDARD ERROR OF A VARIETY MEAN	28.75%	2.21%	0.78%	0.00%	0.00%	0.00%	0.00%	3.83	0.00
	COEFFICIENT OF VARIATION	*****	1.31	1.11	0.00	0.00	0.00	0.00	11.78%	0.00
	5% 1ST VARIETY MEANS (*****=NS)								10.94	0.00
C O R R E L A T I O N S										
	YIELD KG/HA	1.00	-0.02	-0.03	0.00	0.00	0.00	0.00	0.26+	0.00
	DAYS TO FLOWER	-0.02	1.00	0.76++	0.00	0.00	0.00	0.00	0.12	0.00
	DAYS TO MATURITY	-0.03	0.76++	1.00	0.00	0.00	0.00	0.00	0.10	0.00
	NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
	PLANT HEIGHT	0.26+	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HARVEST	0.21	-0.16	0.00	0.00	0.00	0.00	0.00	0.19	0.00
	PLANTS PER PLANT	0.16	0.47++	0.49++	0.00	0.00	0.00	0.00	-0.09	0.00
	PODS PER 100 SEED	0.23	-0.41++	-0.00	0.00	0.00	0.00	0.00	-0.03	0.00
	QUALITY OF SEED	-0.01	-0.49++	-0.56++	0.00	0.00	0.00	0.00	0.33++	0.00

TABLE 109	EXPERIMENT 45	YEAR 1976	(CONTINUED)
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ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	CUTLER 71	0.00	97.25	76.40	12.51	1.75	--	--
11	COBB	0.00	107.25	60.83	12.38	2.25	41.0	23.2
12	DAVIS	0.00	159.25	62.03	12.38	2.25	42.4	22.0
2	WOODWORTH	0.00	97.25	43.35	13.95	3.75	42.9	22.6
1	CALLAND	0.00	160.50	39.80	11.14	4.75	44.0	22.3
14	FORREST	0.00	130.75	51.63	11.48	2.50	42.6	22.5
8	PK-71-21	0.00	101.00	75.85	12.96	2.50	43.1	22.1
10	CLARK 63	0.00	113.75	50.25	12.95	2.75	43.5	23.3
6	WILLIAMS	0.00	140.75	42.48	13.37	4.00	43.0	21.7
9	PICKETT 71	0.00	152.00	53.13	11.35	2.50	44.7	21.2
3	BRAGG	0.00	164.75	73.40	13.50	2.25	43.6	21.2
5	HILL	0.00	126.75	57.15	11.51	2.75	39.2	24.9
15	ESSEX	0.00	134.50	55.48	11.49	2.25	44.2	22.1
4	RANSOM	0.00	157.00	50.45	14.65	2.25	43.7	22.6
13	IMPROVED PELICAN	0.00	112.75	54.60	8.27	2.50	43.1	21.9
	GRAND MEAN	0.00	130.37	56.45	12.26	2.73		
	STANDARD ERROR OF A VARIETY MEAN	0.00	18.68	4.78	0.36	0.28		
	COEFFICIENT OF VARIATION	0.00%	28.66%	16.95%	5.94%	20.43%		
	5% LST VARIETY MEANS (*****=NS)	0.00	*****	13.65	1.04	0.80		
	C O R R E L A T I O N S		(+ - PROB=.01)					
	YIELD KG/HA	0.00	0.21	0.16	0.23	-0.01		
	DAYS TO FLOWER	0.00	-0.16	0.47++	-0.41++	-0.49++		
	DAYS TO MATURITY	0.00	-0.04	0.49++	-0.00	-0.56++		
	NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00		
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00		
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
	PLANT HEIGHT	0.00	0.19	-0.09	-0.03	0.33++		
	LOGGING	0.00	0.00	0.00	0.00	0.00		
	SHATTER	1.00	0.00	0.00	0.00	0.00		
	PLANTS HARVEST	0.00	1.00	-0.15	0.03	0.13		
	PODS PER PLANT	0.00	-0.15	1.00	0.07	-0.57++		
	100 SEED WEIGHT	0.00	0.03	0.07	1.00	-0.02		
	QUALITY OF SEED	0.00	0.13	-0.57++	-0.02	1.00		

TABLE 110 EXPERIMENT 18 YEAR 1976

REGION - ASIA
 SITE - MALANG, JAVA
 LATITUDE - 8 DEG. 25 MIN. S
 COOPERATORS - RIWANODJA, SUMARNO
 DATE PLANTED - MAY 5, 1976
 SOIL PH 6.0
 FERTILIZER USED (KG/HA) - N 50.0, P 44.0, K 41.5
 AMOUNT OF MOISTURE - 30 MM
 NUMBER OF IRRIGATIONS - 11
 LOCAL VARIETIES - ORBA, NO. 29

COUNTRY - INDONESIA
 ELEVATION - 335 M
 LONGITUDE - 112 DEG. 5 MIN. E
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
16	ORBA	1094.39	38.00	83.00	195.50	160.00	0.77	1.45	48.00	2.00
13	IMPROVED PELICAN	910.60	38.00	91.00	115.75	140.75	0.47	1.18	51.25	3.00
11	COBB	810.58	35.00	83.00	141.75	92.00	0.55	0.33	24.25	1.00
10	CLARK 63	568.86	33.00	83.00	72.25	44.50	0.23	0.67	33.00	2.00
15	NO. 29	545.94	50.00	106.00	308.50	171.25	1.35	0.97	69.75	3.00
1	CALLAND	543.86	33.00	91.00	96.50	88.50	0.40	0.65	33.75	2.00
14	FORREST	470.93	36.00	83.00	97.75	80.00	0.25	0.45	30.25	2.00
2	WOODWORTH	423.83	33.00	77.00	90.00	46.00	0.23	0.40	33.00	1.00
3	BRAGG	402.16	36.00	83.00	106.75	73.00	0.33	0.33	26.25	1.00
5	WILLIAMS	372.99	35.00	83.00	166.00	112.25	0.40	0.57	23.75	1.00
9	HILL	364.66	36.00	91.00	100.75	139.00	0.23	0.67	29.50	2.00
12	DAVIS	360.49	35.00	93.00	146.00	189.00	0.43	1.03	26.50	1.00
6	PICKETT 71	262.55	33.00	83.00	141.50	77.50	0.45	0.20	21.75	1.00
8	BOSSIER	258.38	33.00	83.00	136.25	97.25	0.38	0.47	23.00	1.00
4	RANSOM	256.30	35.00	83.00	180.50	136.25	0.35	0.72	22.50	1.50
7	JUPITER	227.96	39.00	106.00	134.00	224.00	0.42	0.87	42.00	1.25
GRAND MEAN		492.16	36.13	87.50	139.36	116.95	0.45	0.69	33.66	1.61
STANDARD ERROR OF A VARIETY MEAN		66.78	0.35	0.00	23.81	21.31	0.09	0.15	1.62	0.09
COEFFICIENT OF VARIATION		27.14%	1.96%	0.00%	34.16%	36.44%	41.06%	44.89%	9.66%	11.64%
5% LSI VARIETY MEANS (*****=NS)		190.20	1.01	0.00	67.81	60.70	0.26	0.44	4.63	0.27
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.19	-0.08	0.16	0.05	0.34++	0.47++	0.47++	0.45++
DAYS TO FLOWER		0.19	1.00	0.73++	0.58++	0.41++	0.72++	0.38++	0.83++	0.60++
DAYS TO MATURITY		-0.08	0.73++	1.00	0.34++	0.58++	0.47++	0.34++	0.64++	0.45++
NODULE NUMBER 1		0.16	0.58++	0.34++	1.00	0.40++	0.89++	0.31+	0.44++	0.26+
NODULE NUMBER 2		0.05	0.41++	0.58++	0.40++	1.00	0.34++	0.77++	0.37++	0.18
NODULE WEIGHT 1		0.34++	0.72++	0.47++	0.89++	0.34++	1.00	0.37++	0.67++	0.42++
NODULE WEIGHT 2		0.47++	0.38++	0.34++	0.31+	0.77++	0.37++	1.00	0.36++	0.36++
PLANT HEIGHT		0.47++	0.83++	0.64++	0.44++	0.37++	0.67++	0.50++	1.00	0.77++
LODGING		0.45++	0.60++	0.45++	0.26+	0.18	0.42++	0.36++	0.77++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.31+	0.09	-0.30+	0.23	-0.12	0.20	0.08	0.12	0.30+
PODS PER PLANT		0.49++	0.69++	0.43++	0.33++	0.34++	0.52++	0.56++	0.83++	0.62++
100 SEED WEIGHT		-0.07	-0.73++	-0.50++	-0.40++	-0.31+	-0.54++	-0.25+	-0.67++	-0.55++
QUALITY OF SEED		-0.36++	0.05	0.17	-0.05	0.23	-0.08	0.11	0.07	0.11

TABLE 110 EXPERIMENT 18 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	OREA	0.00	180.25	28.75	9.75	2.75	40.6	18.6
13	IMPROVED PELICAN	0.00	181.50	26.00	10.75	2.50	46.3	18.6
11	COBB	0.00	171.00	15.00	13.75	1.50	39.0	21.4
10	CLARK 63	0.00	183.00	13.25	12.50	2.75	45.4	19.7
15	NO. 29	0.00	200.00	32.25	6.00	3.00	49.0	13.5
1	CALLAND	0.00	179.00	12.75	13.00	3.00	45.3	17.8
14	FORREST	0.00	199.00	14.00	10.50	3.50	42.6	19.4
2	WOODWORTH	0.00	185.00	16.50	12.50	2.75	44.5	19.4
3	BRAGG	0.00	188.50	12.25	12.00	2.50	43.5	19.6
9	WILLIAMS	0.00	172.50	8.50	14.00	2.75	45.9	19.3
5	HILL	0.00	162.50	13.75	11.25	3.00	43.5	19.1
12	DAVIS	0.00	190.50	11.75	12.50	2.75	46.2	18.5
6	PICKETT 71	0.00	161.75	11.25	12.00	2.75	43.4	20.2
8	BOSSIER	0.00	174.50	12.00	10.25	3.25	45.1	18.8
4	RANSON	0.00	183.50	14.75	12.00	3.00	41.0	21.9
7	JUPIER	0.00	106.75	18.75	11.00	3.25	44.6	18.6
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LST VARIETY MEANS (*****NS)								
C O R R E L A T I O N S								
(+ - PROB=.05 +- - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE III EXPERIMENT 17 YEAR 1976

REGION - ASIA
 SITE - MEDAN
 LATITUDE - 3 DEG. 35 MIN. N
 COOPERATOR - B.O.P. TAMPUBOLON
 DATE PLANTED - MAY 15, 1976
 SOIL TYPE - SAND 39%, SILT 29%, CLAY 32%, PH 5.6
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 1060 MM
 LOCAL VARIETIES - ORBA, SIPERAK

COUNTRY - INDONESIA
 ELEVATION - 25 M
 LONGITUDE - 98 DEG. 41 MIN. E

DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	JUPITER	1103.55	33.00	103.00	94.25	206.00	0.12	0.84	40.35	1.00
13	IMPROVED PELICAN	1039.79	33.00	86.00	49.25	162.25	0.12	0.56	43.73	1.00
14	FORREST	882.68	27.00	68.00	63.75	159.25	0.08	1.15	23.46	1.00
11	COBB	767.65	27.00	68.00	80.75	101.00	0.09	0.61	21.48	1.00
15	ORBA	756.82	36.00	83.00	69.50	93.25	0.05	0.18	38.41	1.00
8	BOSSIER	633.88	25.00	68.00	97.75	152.75	0.10	0.93	20.45	1.00
5	HILL	618.04	30.00	72.50	43.00	89.25	0.07	0.49	21.23	1.00
1	CALLAND	594.29	25.00	68.00	64.00	85.75	0.09	0.54	27.83	1.00
2	WOODWORTH	518.02	25.00	68.00	94.00	71.25	0.12	0.44	20.30	1.00
6	PICKETT 71	488.43	25.00	68.00	45.25	77.75	0.05	0.41	19.56	1.00
3	BRAGG	480.51	27.00	68.00	68.50	134.25	0.08	0.76	21.88	1.00
4	RANSOM	441.34	27.00	68.00	100.25	130.25	0.08	0.50	17.77	1.00
12	DAVIS	428.00	27.00	68.00	71.00	90.00	0.10	0.56	20.81	1.00
16	SIPERAK	425.50	36.00	79.25	67.00	94.25	0.08	0.22	35.68	1.00
9	WILLIAMS	342.15	25.00	71.75	107.50	88.75	0.15	0.45	17.17	1.00
10	CLARK 63	310.90	25.00	68.00	66.75	101.25	0.06	0.51	21.98	1.00
	GRAND MEAN	614.47	28.31	73.47	73.91	114.83	0.09	0.57	25.75	1.00
	STANDARD ERROR OF A VARIETY MEAN	66.57	0.00	1.77	11.94	18.41	0.03	0.11	1.28	0.00
	COEFFICIENT OF VARIATION	21.67%	0.00%	4.82%	32.31%	32.06%	57.57%	38.29%	9.95%	0.00%
	5% LSD VARIETY MEANS (*****=NS)	189.63	0.00	5.05	34.01	52.43	*****	0.31	3.65	0.00
C O R R E L A T I O N S										
	YIELD	KG/HA	0.41++	0.54++	-0.12	0.35++	0.01	0.25	0.58++	0.00
	DAYS TO FLOWER	0.41++	1.00	0.72++	-0.16	0.18	-0.08	-0.27+	0.81++	0.00
	DAYS TO MATURITY	0.54++	0.72++	1.00	-0.04	0.35++	0.07	-0.03	0.79++	0.00
	NODULE NUMBER 1	-0.12	-0.16	-0.04	1.00	0.34++	0.67++	0.18	-0.18	0.00
	NODULE NUMBER 2	0.35++	0.18	0.35++	0.34++	1.00	0.47++	0.49++	0.27+	0.00
	NODULE WEIGHT 1	0.01	-0.08	0.07	0.67++	0.47++	1.00	0.32++	0.04	0.00
	NODULE WEIGHT 2	0.25	-0.27+	-0.03	0.18	0.49++	0.32++	1.00	-0.08	0.00
	PLANT HEIGHT	0.58++	0.81++	0.79++	-0.18	0.27+	0.04	-0.08	1.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.52++	0.20	0.73++	0.19	0.50++	0.24	0.27+	0.42++	0.00
	PODS PER PLANT	0.92++	0.63++	0.59++	-0.20	0.29+	-0.02	0.04	0.72++	0.00
	100 SEED WEIGHT	0.13	-0.62++	0.59++	0.15	0.10	-0.10	0.47++	-0.35++	0.00
	QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE III EXPERIMENT 17 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	JUPITER	1.00	115.00	23.13	14.94	0.00	46.5	22.3
13	IMPROVED PELICAN	1.00	100.00	30.65	10.65	0.00	46.9	23.2
14	FORREST	1.00	92.00	19.85	14.26	0.00	47.1	22.1
11	COBB	1.00	90.00	16.05	15.15	0.00	43.2	24.6
15	ORBA	1.00	90.00	21.80	11.44	0.00	44.2	21.1
8	BOSSIER	1.00	97.00	13.75	15.27	0.00	48.7	22.2
5	HILL	1.00	93.00	14.95	13.09	0.00	43.5	22.9
1	CALLAND	1.00	93.00	11.55	16.93	0.00	46.2	22.7
2	WOODWORTH	1.00	93.00	12.15	14.07	0.00	44.6	23.9
6	PICKETT 71	1.00	94.00	11.85	13.13	0.00	46.8	22.0
3	BRAGG	1.00	92.00	10.63	14.77	0.00	46.9	23.5
4	RANSOM	1.00	95.00	11.78	12.11	0.00	44.8	23.7
12	DAVIS	1.00	90.00	11.40	12.37	0.00	46.9	21.1
16	SIPERAK	1.00	90.00	15.60	8.91	0.00	44.6	18.1
9	WILLIAMS	1.00	96.00	9.10	12.98	0.00	46.0	22.0
10	CLARK 63	1.00	92.00	8.47	12.92	0.00	46.6	23.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	94.50	15.17	13.31	0.00		
COEFFICIENT OF VARIATION		0.00	0.00	1.54	0.09	0.00		
5% LSC VARIETY MEANS (*****=NS)		0.00%	0.00%	20.28%	1.38%	0.00%		
		0.00	0.00	4.38	0.26	0.00		
C O R R E L A T I O N S								
			(+ - PROB=.05		++ - PROB=.01)			
YIELD	KG/HA	0.00	0.52++	0.92++	0.13	0.00		
DAYS TO FLOWER		0.00	0.20	0.63++	-0.62++	0.00		
DAYS TO MATURITY		0.00	0.73++	0.59++	-0.23	0.00		
NODULE NUMBER 1		0.00	0.19	-0.20	0.15	0.00		
NODULE NUMBER 2		0.00	0.50++	0.29+	0.10	0.00		
NODULE WEIGHT 1		0.00	0.24	-0.02	0.10	0.00		
NODULE WEIGHT 2		0.00	0.27+	0.04	0.47++	0.00		
PLANT	HEIGHT	0.00	0.42++	0.72++	-0.35++	0.00		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS	HARVEST	0.00	1.00	0.39++	0.19	0.00		
PODS PER	PLANT	0.00	0.39++	1.00	-0.24	0.00		
100 SEED	WEIGHT	0.00	0.19	-0.24	1.00	0.00		
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00		

TABLE 112 EXPERIMENT 92 YEAR 1976

REGION - ASIA
 SITE - KHAIRANITAR FARM
 LATITUDE - 28 DEG. N
 COOPERATORS - B. THAPA, M.P. BHARATI
 DATE PLANTED - JULY 9, 1976
 SOIL TYPE - SAND
 FERTILIZER USED (KG/HAY - N 25.0, P 25.0, K 25.0
 COUNTRY - NEPAL
 ELEVATION - 1000 M
 LONGITUDE - 84 DEG. E
 DATE HARVESTED - NOVEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	ESSEX	2208.77	75.75	103.25	0.00	0.00	0.00	0.00	44.75	0.00
9	BEESON	2083.75	77.50	103.25	0.00	0.00	0.00	0.00	48.75	0.00
1	CALLAND	2083.75	71.25	102.00	0.00	0.00	0.00	0.00	49.00	0.00
6	CLARK 63	2083.75	74.25	102.00	0.00	0.00	0.00	0.00	50.75	0.00
4	CUTLER 71	2000.40	76.25	102.25	0.00	0.00	0.00	0.00	53.75	0.00
12	CORSOY	1958.72	78.25	103.25	0.00	0.00	0.00	0.00	31.75	0.00
16	STEELE	1917.05	73.00	101.00	0.00	0.00	0.00	0.00	44.75	0.00
5	WILLIAMS	1917.05	76.25	104.00	0.00	0.00	0.00	0.00	46.50	0.00
10	COLUMBUS	1875.37	71.75	103.50	0.00	0.00	0.00	0.00	42.50	0.00
15	HARK	1875.37	83.00	103.50	0.00	0.00	0.00	0.00	51.25	0.00
8	WELLS	1875.37	76.25	101.50	0.00	0.00	0.00	0.00	40.25	0.00
14	HODGSON	1833.70	76.25	101.50	0.00	0.00	0.00	0.00	31.75	0.00
7	FORREST	1792.02	79.75	101.00	0.00	0.00	0.00	0.00	40.25	0.00
3	HILL	1583.65	77.50	103.00	0.00	0.00	0.00	0.00	53.75	0.00
2	WOODWORTH	1541.97	74.50	102.50	0.00	0.00	0.00	0.00	41.25	0.00
13	AMSOY 71	1500.30	75.25	103.00	0.00	0.00	0.00	0.00	47.00	0.00
	GRAND MEAN	1883.19	76.05	102.53	0.00	0.00	0.00	0.00	44.88	0.00
	STANDARD ERROR OF A VARIETY MEAN	229.55	2.65	1.19	0.00	0.00	0.00	0.00	5.26	0.00
	COEFFICIENT OF VARIATION	24.38%	6.96%	2.32%	0.00%	0.00%	0.00%	0.00%	23.42%	0.00%
	5% 1ST VARIETY MEANS (*****=NS)	*****	*****	*****	0.00	0.00	0.00	0.00	*****	0.00
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
	YIELD KG/HA	1.00								
	DAYS TO FLOWER	-0.09	-0.09	-0.14	0.00	0.00	0.00	0.00	-0.01	0.00
	DAYS TO MATURITY	-0.14	1.00	0.31+	0.00	0.00	0.00	0.00	-0.20	0.00
	NODULE NUMBER 1	0.00	0.31+	1.00	0.00	0.00	0.00	0.00	0.03	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	PLANT HEIGHT	-0.01	-0.20	0.03	0.00	0.00	0.00	1.00	0.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	-0.28+	-0.10	0.12	0.00	0.00	0.00	0.00	0.15	0.00
	PODS PER PLANT	0.08	-0.09	0.07	0.00	0.00	0.00	0.00	0.69++	0.00
	100 SEED WEIGHT	0.20	-0.09	-0.21	0.00	0.00	0.00	0.00	-0.26+	0.00
	QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 112 EXPERIMENT 92 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	ESSEX	0.00	123.50	9.13	15.25	0.00
9	BEESON	0.00	125.50	9.23	15.50	0.00
1	CALLAND	0.00	125.75	9.75	17.00	0.00
6	CLARK 63	0.00	125.00	8.65	15.50	0.00
4	CUTLER 71	0.00	125.25	9.63	17.50	0.00
12	CORSOY	0.00	125.75	6.67	16.00	0.00
16	STERLE	0.00	124.00	7.30	17.25	0.00
5	WILLIAMS	0.00	124.00	8.77	15.75	0.00
10	COLUMBUS	0.00	125.50	8.32	17.75	0.00
15	HARK	0.00	124.75	9.90	14.25	0.00
8	WELLS	0.00	124.00	7.50	15.00	0.00
14	HODGSON	0.00	123.75	6.70	17.75	0.00
7	FORREST	0.00	124.00	7.80	17.75	0.00
3	HILL	0.00	125.50	9.80	15.00	0.00
2	WOODWORTH	0.00	123.75	8.32	17.00	0.00
13	AMSOY 71	0.00	124.25	8.47	15.00	0.00
GRAND MEAN						
		0.00	124.64	8.50	16.20	0.00
STANDARD ERROR OF A VARIETY MEAN						
		0.00	1.15	0.77	0.79	0.00
COEFFICIENT OF VARIATION						
		0.00%	1.85%	18.02%	9.74%	0.00%
5% LSD VARIETY MEANS (*****=NS)						
		0.00	*****	2.18	2.25	0.00
C O R R E L A T I O N S						
			(+ - PROB=-.05	++ - PROB=-.01)		
YIELD	KG/HA	0.00	-0.28+	0.08	0.20	0.00
DAYS TO FLOWER		0.00	-0.10	-0.09	-0.09	0.00
DAYS TO MATURITY		0.00	0.12	0.07	-0.21	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	0.15	0.69++	-0.26+	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	0.13	0.02	0.00
PLANTS PER		0.00	0.13	1.00	-0.18	0.00
100 SEED	WEIGHT	0.00	0.02	-0.18	1.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 113 EXPERIMENT 61 YEAR 1976

REGION - ASIA COUNTRY - NEPAL
 SITE - KHUMALTAR ELEVATION - 1360 M
 LATITUDE - 27 DEG. 40 MIN. N LONGITUDE - 85 DEG. 20 MIN. E
 COOPERATORS - MEENA PANDAY, M.P. BHARATI
 DATE PLANTED - MAY 20, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL TYPE - CLAY LOAM
 FERTILIZER USED (KG/HA) - N 10.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 740 MM
 LOCAL VARIETY - KHUMAL G.P.1

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSOM	3260.65	56.25	145.00	358.50	0.00	2.25	0.00	57.45	2.00
11	DAVIS	3213.74	66.50	145.00	253.75	0.00	1.82	0.00	73.40	1.75
6	PICKETT 71	3194.39	56.50	144.75	267.50	0.00	1.58	0.00	59.63	2.00
3	BRAGG	2871.82	52.00	135.00	233.75	0.00	1.91	0.00	66.95	1.75
8	BOSSIER	2789.31	61.50	144.75	319.50	0.00	2.54	0.00	71.82	2.00
12	FORREST	2770.14	53.50	130.25	203.00	0.00	1.33	0.00	66.93	1.00
16	KHUMAL G.P.1	2613.86	65.00	134.50	268.50	0.00	2.37	0.00	135.73	4.00
5	HILL	2475.91	60.50	128.25	169.00	0.00	0.92	0.00	63.98	1.00
2	WOODWORTH	2115.01	39.25	114.25	271.50	0.00	1.39	0.00	50.78	1.25
15	COLUMBUS	1984.15	43.75	116.25	318.00	0.00	1.80	0.00	62.40	1.00
9	WILLIAMS	1837.45	34.50	102.50	332.25	0.00	2.19	0.00	45.35	1.00
7	CUTLER 71	1775.35	33.25	101.50	260.75	0.00	1.53	0.00	46.98	1.00
10	CLARK 63	1382.78	39.25	107.00	284.50	0.00	1.88	0.00	45.48	1.00
1	CALLAND	1279.42	33.75	107.25	180.25	0.00	1.63	0.00	38.23	1.00
14	BEESON	1203.99	32.00	95.00	178.00	0.00	1.47	0.00	25.98	1.00
13	WELLS	385.91	32.25	93.00	186.25	0.00	1.13	0.00	17.40	1.00
GRAND MEAN										
		2197.08	47.48	121.52	255.31	0.00	1.73	0.00	58.03	1.48
STANDARD ERROR OF A VARIETY MEAN		314.24	2.27	5.14	34.06	0.00	0.24	0.00	4.04	0.11
COEFFICIENT OF VARIATION		28.60%	9.54%	8.45%	26.68%	0.00%	27.51%	0.00%	13.93%	14.91%
5% LSD VARIETY MEANS (*****=NS)		895.08	6.45	14.63	97.03	0.00	0.68	0.00	11.51	0.32
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)										
YIELD KG/HA		1.00	0.79++	0.81++	0.17	0.00	0.16	0.00	0.62++	0.49++
DAYS TO FLOWER		0.79++	1.00	0.89++	0.12	0.00	0.21	0.00	0.77++	0.67++
DAYS TO MATURITY		0.81++	0.89++	1.00	0.18	0.00	0.19	0.00	0.64++	0.58++
NODULE NUMBER 1		0.17	0.12	0.18	1.00	0.00	0.65++	0.00	0.15	0.14
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.16	0.21	0.19	0.65++	0.00	1.00	0.00	0.30+	0.40++
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.62++	0.77++	0.64++	0.15	0.00	0.30+	0.00	1.00	0.83++
LODGING		0.49++	0.67++	0.58++	0.14	0.00	0.40++	0.00	0.83++	1.00
SHATTER		-0.13	0.07	-0.06	0.14	0.00	0.28+	0.00	0.32+	0.00
PLANTS HARVESTED		0.18	0.05	0.10	-0.05	0.00	-0.18	0.00	0.34++	0.05
PODS PER PLANT		0.74++	0.82++	0.77++	0.20	0.00	0.31+	0.00	0.42++	0.51++
100 SEED WEIGHT		-0.18	-0.38++	-0.32+	0.09	0.00	0.10	0.00	-0.28+	-0.22
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 113 EXPERIMENT 61 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	3.00	123.00	48.13	20.75	0.00
11	DAVIS	2.00	151.75	47.30	24.75	0.00
6	PICKETT 71	1.00	154.25	39.83	18.50	0.00
3	BRAGG	1.25	135.50	35.35	23.25	0.00
8	BOSSIER	2.00	113.75	60.65	18.00	0.00
12	FORREST	2.00	150.75	32.88	17.50	0.00
16	KHUMAL G.P.-1	3.00	167.00	34.28	19.25	0.00
5	HILL	2.00	144.50	47.30	17.75	0.00
2	WOODWORTH	1.75	149.25	25.65	24.00	0.00
15	COLUMBUS	2.00	174.50	28.90	22.75	0.00
9	WILLIAMS	2.00	148.75	19.10	24.50	0.00
7	CUTLER 71	2.00	156.75	21.90	21.75	0.00
10	CLARK 63	2.00	151.50	24.10	20.50	0.00
1	CALLAND	2.00	144.75	22.90	21.25	0.00
14	BEESON	2.00	122.25	11.38	22.50	0.00
13	WELLS	2.00	99.75	11.68	21.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		2.00	143.00	31.96	21.13	0.00
COEFFICIENT OF VARIATION		0.09	14.75	4.39	0.43	0.00
5% LSD VARIETY MEANS (*****=NS)		9.13%	20.63%	27.45%	4.09%	0.00%
		0.26	*****	12.49	1.23	0.00
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)						
YIELD KG/HA		-0.13	0.18	0.74++	-0.18	0.00
DAYS TO FLOWER		0.07	0.05	0.82++	-0.38++	0.00
DAYS TO MATURITY		-0.06	0.10	0.77++	-0.32+	0.00
NODULE NUMBER 1		0.14	-0.05	0.20	0.09	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.28+	-0.18	0.31+	0.10	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.28+	0.34++	0.51++	-0.28+	0.00
LODGING		0.32+	0.05	0.42++	-0.22	0.00
SHATTER		1.00	0.02	-0.00	-0.09	0.00
PLANTS HARVEST		0.02	1.00	-0.13	0.01	0.00
PODS PER PLANT		-0.00	-0.13	1.00	-0.35++	0.00
100 SEED WEIGHT		-0.09	0.01	-0.35++	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 114 EXPERIMENT 80 YEAR 1976

REGION - ASIA
 SITE - ISLAMABAD
 LATITUDE - 34 DEG. N
 COOPERATORS - P.F. KNOWLES, M.A. RANA
 DATE PLANTED - JULY 17, 1976
 SOIL TYPE - SANDY LOAM
 FERTILIZER USED (KG/HA) ~ N 55.0, P 24.2
 AMOUNT OF MOISTURE - 890 MM

COUNTRY - PAKISTAN
 ELEVATION - 526 M
 LONGITUDE - 73 DEG. E

DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	PICKETT 71	1194.61	43.00	102.00	0.00	0.00	0.00	0.00	67.25	1.50
3	BAGG	1129.37	43.00	98.50	0.00	0.00	0.00	0.00	72.58	1.00
8	BOSSIER	1125.29	43.25	95.25	0.00	0.00	0.00	0.00	70.75	1.25
14	BEESON	1108.64	33.25	79.00	0.00	0.00	0.00	0.00	59.50	2.00
11	DAVIS	1096.75	44.00	102.00	0.00	0.00	0.00	0.00	69.58	1.75
7	CUTLER 71	1096.57	34.00	82.75	0.00	0.00	0.00	0.00	65.25	3.25
10	CLARK 63	1076.37	32.75	83.50	0.00	0.00	0.00	0.00	62.09	2.00
13	WELLS	1049.87	33.50	75.50	0.00	0.00	0.00	0.00	52.08	1.00
2	WOODWORTH	1021.32	34.00	84.25	0.00	0.00	0.00	0.00	58.67	1.25
9	WILLIAMS	1019.29	31.50	85.75	0.00	0.00	0.00	0.00	59.42	1.25
12	FORREST	982.59	39.75	102.00	0.00	0.00	0.00	0.00	69.08	1.00
4	RANSON	929.13	42.00	100.00	0.00	0.00	0.00	0.00	71.00	1.25
1	CALLAND	865.61	33.00	84.75	0.00	0.00	0.00	0.00	56.92	1.50
16	ESSEX	830.29	36.75	93.75	0.00	0.00	0.00	0.00	61.00	1.00
15	COLUMBUS	776.70	35.25	90.50	0.00	0.00	0.00	0.00	67.50	1.00
5	HILL	717.58	41.50	94.00	0.00	0.00	0.00	0.00	66.75	1.50
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION 25.72%										
5% ISL VARIETY MEANS (*****=NS)										

CORRELATIONS (+ - PROB=.05 +- - PROB=.01)=										
YIELD	KG/HA	1.00	-0.00	0.07	0.00	0.00	0.00	0.00	0.50++	0.26+
DAYS TO FLOWER		-0.00	1.00	0.84++	0.00	0.00	0.00	0.00	0.57++	-0.22
DAYS TO MATURITY		0.07	0.84++	1.00	0.00	0.00	0.00	0.00	0.63++	-0.22
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.50++	0.57++	0.63++	0.00	0.00	0.00	0.00	1.00	0.16
LODGING		0.26+	-0.22	-0.22	0.00	0.00	0.00	0.00	0.16	1.00
SHATTER		-0.05	0.35++	0.38++	0.00	0.00	0.00	0.00	0.10	-0.02
HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS PER 100 SEED		-0.02	0.67++	0.72++	0.00	0.00	0.00	0.00	0.60++	-0.11
PLANT WEIGHT		0.53++	-0.40++	-0.30+	0.00	0.00	0.00	0.00	0.07	0.35++
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 114 EXPERIMENT 80 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	PICKETT 71	2.00	0.00	26.46	10.08	0.00
3	BAGG	1.00	0.00	25.90	11.30	0.00
8	BOSSIER	1.00	0.00	23.18	9.67	0.00
14	BEESON	1.00	0.00	13.31	12.38	0.00
11	DAVIS	1.25	0.00	24.58	11.63	0.00
7	CUTLER 71	1.00	0.00	17.00	13.15	0.00
10	CLARK 63	1.00	0.00	18.69	11.65	0.00
13	WELLS	1.00	0.00	12.32	11.65	0.00
2	WOODWORTH	1.00	0.00	16.41	11.83	0.00
9	WILLIAMS	1.00	0.00	18.81	13.30	0.00
12	FORREST	1.25	0.00	32.20	8.15	0.00
4	RANSON	1.25	0.00	30.75	10.05	0.00
1	CALLAND	1.00	0.00	16.18	11.10	0.00
16	ESSEX	1.00	0.00	23.73	8.58	0.00
15	COLUMBUS	1.00	0.00	18.80	11.23	0.00
5	HILL	1.00	0.00	32.05	9.20	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.11	0.00	21.90	10.93	0.00
COEFFICIENT OF VARIATION		26.72%	0.00%	2.21	0.76	0.00
5% LSD VARIETY MEANS (*****=NS)		0.42	0.00	20.21%	13.89%	0.00%
C O R R E L A T I O N S (+ - PROB=.01)						
YIELD	KG/HA	-0.05	0.00	-0.02	0.53++	0.00
DAYS TO FLOWER		0.35++	0.00	0.67++	-0.40++	0.00
DAYS TO MATURITY		0.38++	0.00	0.72++	-0.30+	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.10	0.00	0.60++	0.07	0.00
LODGING		-0.02	0.00	-0.11	0.35++	0.00
SHATTER		1.00	0.00	0.18	-0.19	0.00
PLANTS	HARVEST	0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.18	0.00	1.00	-0.43++	0.00
100 SEED WEIGHT		-0.19	0.00	-0.43++	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 115 EXPERIMENT 107 YEAR 1976

REGION - ASIA
 SITE - KOTDIJI
 LATITUDE - 27 DEG. N
 COOPERATORS - A.H. CHAUDHRY, K. SHEIKH, M.I. SOOMRO
 DATE PLANTED - JUNE 19, 1976
 SOIL TYPE - SANDY LOAM
 NUMBER OF IRRIGATIONS - 7
 LOCAL VARIETY - LOPPA

COUNTRY - PAKISTAN
 ELEVATION - 18 M
 LONGITUDE - 68 DEG. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	WILLIAMS	1769.94	41.75	93.00	23.25	30.00	0.00	0.00	65.50	0.00
3	CUTLER 71	1742.01	40.25	91.75	35.50	45.00	0.00	0.00	60.25	0.00
9	LOPPA	1534.06	44.25	88.50	12.25	21.00	0.00	0.00	71.00	0.00
5	CLARK 63	1463.21	44.00	97.00	9.00	16.50	0.00	0.00	63.75	0.00
7	WELLS	1416.12	39.00	87.75	22.75	30.25	0.00	0.00	42.00	0.00
11	AMSOY 71	1368.61	39.25	94.50	13.75	21.25	0.00	0.00	53.75	0.00
2	CALLAND	1368.61	42.50	96.00	38.00	48.75	0.00	0.00	59.50	0.00
13	WOODWORTH	1345.27	42.50	87.50	20.00	30.25	0.00	0.00	55.50	0.00
6	HARK	1091.05	40.75	88.00	15.00	24.00	0.00	0.00	48.50	0.00
14	FORREST	1061.46	43.75	97.00	8.50	15.00	0.00	0.00	46.00	0.00
8	BEESON	1014.79	40.00	97.00	17.00	25.75	0.00	0.00	49.25	0.00
12	STEELE	943.94	36.00	73.25	8.25	17.25	0.00	0.00	42.50	0.00
10	HODGSON	896.85	34.25	89.25	10.00	18.75	0.00	0.00	28.25	0.00
16	CORSOY	754.73	37.50	71.50	29.25	36.50	0.00	0.00	30.75	0.00
15	ALTONA	730.98	36.75	73.25	11.00	22.25	0.00	0.00	34.25	0.00
	SWIFT	683.89	37.00	68.75	2.75	10.25	0.00	0.00	31.25	0.00
	GRAND MEAN	1199.09	39.97	87.13	17.27	25.80	0.00	0.00	48.88	0.00
	STANDARD ERROR OF A VARIETY MEAN	157.14	1.34	1.73	7.76	8.15	0.00	0.00	4.27	0.00
	COEFFICIENT OF VARIATION	26.21%	6.68%	3.96%	89.89%	63.20%	0.00%	0.00%	17.46%	0.00%
	5% LSD VARIETY MEANS (*****=NS)	447.61	3.80	4.92	*****	*****	0.00	0.00	12.16	0.00
C O R R E L A T I O N S										
	YIELD	KG/HA								
	DAYS TO FLOWER	0.31+	0.31+	0.39++	0.27+	0.27+	0.00	0.00	0.64++	0.00
	DAYS TO MATURITY	1.00	0.45++	0.45++	0.15	0.15	0.00	0.00	0.50++	0.00
	NODULE NUMBER 1	0.27+	0.45++	1.00	0.12	0.10	0.00	0.00	0.43++	0.00
	NODULE NUMBER 2	0.27+	0.15	0.12	1.00	0.99++	0.00	0.00	0.15	0.00
	NODULE WEIGHT 1	0.00	0.15	0.10	0.99++	1.00	0.00	0.00	0.16	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	PLANT	0.64++	0.50++	0.43++	0.00	0.00	0.00	1.00	0.00	0.00
	LODGING	0.00	0.00	0.00	0.15	0.16	0.00	0.00	1.00	0.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	PLANTS	0.88++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PODS PER PLANT	0.50++	0.32++	0.44++	0.23	0.22	0.00	0.00	0.60++	0.00
	100 SEED WEIGHT	0.16	0.23	0.24	0.21	0.25+	0.00	0.00	0.72++	0.00
	QUALITY OF SEED	0.00	-0.08	0.11	0.15	0.13	0.00	0.00	0.04	0.00
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(* - PROB=.05 ** - PROB=.01)

TABLE 115 EXPERIMENT 107 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	WILLIAMS	0.00	150.00	38.25	12.50	0.00
3	CUTLER 71	0.00	158.00	45.25	14.00	0.00
9	LOPPA	0.00	125.00	46.50	10.75	0.00
5	CLARK 63	0.00	117.75	30.00	12.25	0.00
7	WELLS	0.00	135.25	45.25	12.00	0.00
11	ANSOY 71	0.00	110.75	47.75	13.00	0.00
1	CALLAND	0.00	107.25	44.50	12.00	0.00
2	WOODWORTH	0.00	108.50	44.75	12.25	0.00
13	HARK	0.00	94.00	41.00	10.75	0.00
6	FORREST	0.00	86.75	28.25	7.75	0.00
8	BEESON	0.00	74.50	44.75	12.50	0.00
14	STEELE	0.00	66.75	31.75	15.25	0.00
12	HODGSON	0.00	62.75	24.00	11.25	0.00
10	CORSOY	0.00	41.50	25.25	11.50	0.00
16	ALTONA	0.00	35.75	24.25	9.75	0.00
15	SWIFT	0.00	39.50	21.75	9.50	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	94.63	36.45	11.69	0.00
COEFFICIENT OF VARIATION		0.00	17.28	5.61	0.82	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	36.52	30.79	14.04	0.00
			49.21	15.99	2.34	0.00
C O R R E L A T I O N S						
			(+ - PROB=.05		+ - PROB=.01)	
YIELD	KG/HA	0.00	0.88++	0.50++	0.16	0.00
DAYS TO FLOWER		0.00	0.32++	0.23	-0.08	0.00
DAYS TO MATURITY		0.00	0.44++	0.24	0.11	0.00
NODULE NUMBER 1		0.00	0.23	0.21	0.15	0.00
NODULE NUMBER 2		0.00	0.22	0.25+	0.13	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.60++	0.72++	0.04	0.00
LC D G I N G		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.51++	0.18	0.00
PODS PER PLANT		0.00	0.51++	1.00	-0.02	0.00
100 SEED WEIGHT		0.00	0.18	-0.02	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 116 EXPERIMENT 47 YEAR 1976

REGION - ASIA
 SITE - KOTDLJI
 LATITUDE - 27 DEG. N
 COOPERATORS - A.H. CHAUDHRY, K. SHEIKH, M.I. SOHMO
 DATE PLANTED - JULY 1, 1976
 SOIL TYPE - SANDY LOAM
 NUMBER OF IRRIGATIONS - 7
 SUBSTITUTE VARIETY - HAMPTON 266A

COUNTRY - PAKISTAN
 ELEVATION - 18 M
 LONGITUDE - 68 DEG. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSOM	1974.56	51.75	103.25	8.50	16.50	0.00	0.00	0.00	0.00	72.50	0.00
8	BOSSIER	1922.47	51.75	103.50	5.25	13.00	0.00	0.00	0.00	0.00	73.25	0.00
11	COBB	1903.71	52.25	112.50	12.75	21.25	0.00	0.00	0.00	0.00	66.25	0.00
6	PICKETT 71	1903.71	50.75	100.75	9.00	17.25	0.00	0.00	0.00	0.00	57.50	0.00
15	HAMPTON 266A	1856.20	52.50	104.50	10.25	19.25	0.00	0.00	0.00	0.00	72.50	0.00
3	BAGG	1778.69	52.75	103.75	13.00	21.75	0.00	0.00	0.00	0.00	75.00	0.00
9	WILLIAMS	1776.61	45.50	88.00	12.50	21.25	0.00	0.00	0.00	0.00	73.25	0.00
12	DAVIS	1739.51	51.50	101.50	8.75	17.50	0.00	0.00	0.00	0.00	51.25	0.00
2	WOODNORTH	1737.85	46.00	88.00	11.25	17.75	0.00	0.00	0.00	0.00	69.75	0.00
16	ESSEX	1734.51	50.00	97.25	7.50	17.25	0.00	0.00	0.00	0.00	45.00	0.00
1	CALLAND	1671.17	47.25	88.50	8.75	16.00	0.00	0.00	0.00	0.00	68.75	0.00
13	IMPROVED PELICAN	1470.71	55.00	111.50	10.25	17.75	0.00	0.00	0.00	0.00	116.25	0.00
7	CUTLER 71	1439.45	46.75	91.75	13.50	23.50	0.00	0.00	0.00	0.00	62.00	0.00
5	HILL	1416.12	51.50	91.50	14.50	24.75	0.00	0.00	0.00	0.00	44.50	0.00
14	FORREST	1242.33	52.00	100.50	5.75	13.00	0.00	0.00	0.00	0.00	47.50	0.00
10	CLARK 63	1189.82	46.75	91.00	9.00	16.75	0.00	0.00	0.00	0.00	59.25	0.00
GRAND MEAN												
STANDARD ERROR OF A VARIETY MEAN												
1672.34												
198.95												
23.79%												
5% LSE VARIETY MEANS (*****=NS)												

CORRELATIONS												
(+ - PROB=.05 +- - PROB=.01)												
YIELD KG/HA												
DAYS TO FLOWER												
DAYS TO MATURITY												
NODULE NUMBER 1												
NODULE NUMBER 2												
NODULE WEIGHT 1												
NODULE WEIGHT 2												
PLANT HEIGHT												
LODGING												
SHATTER												
PLANTS HARVEST												
PODS PER PLANT												
100 SEED WEIGHT												
QUALITY OF SEED												

TABLE 116 EXPERIMENT 47 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	0.00	184.50	33.00	21.00	0.00
8	BOSSIER	0.00	176.50	58.00	16.00	0.00
11	COBB	0.00	170.00	43.00	13.25	0.00
6	PICKETT 71	0.00	183.50	34.00	14.50	0.00
15	HAMPTON 266A	0.00	169.25	54.50	17.25	0.00
3	BRAGG	0.00	203.75	26.75	15.75	0.00
9	WILLIAMS	0.00	170.75	35.75	11.75	0.00
12	DAVIS	0.00	177.25	29.00	12.50	0.00
2	WOODWORTH	0.00	173.75	36.75	16.00	0.00
16	ESSEX	0.00	151.75	22.50	15.25	0.00
1	CALLAND	0.00	169.75	35.50	12.25	0.00
13	IMPROVED PELICAN	0.00	133.75	76.75	11.75	0.00
7	CUTLER 71	0.00	116.25	34.25	19.00	0.00
5	HILL	0.00	144.25	33.25	10.50	0.00
14	FORREST	0.00	70.75	27.50	13.75	0.00
10	CLARK 63	0.00	99.50	31.25	15.50	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	152.20	38.23	14.75	0.00
COEFFICIENT OF VARIATION		0.00	20.58	5.00	0.57	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	27.04%	26.16%	7.73%	0.00%
		0.00	58.62	14.24	1.62	0.00
C O R R E L A T I O N S						
		{+ - PROB=.05		++ - PROB=.01)		
YIELD	KG/HA	0.00	0.68++	0.10	0.15	0.00
DAYS TO FLOWER		0.00	0.15	0.26+	-0.01	0.00
DAYS TO MATURITY		0.00	0.09	0.40++	0.07	0.00
NODULE NUMBER 1		0.00	0.13	-0.10	-0.09	0.00
NODULE NUMBER 2		0.00	0.13	-0.13	-0.07	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00
PLANT LODGING		0.00	0.26+	0.67++	0.01	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00
HARVEST		1.00	0.00	0.00	0.00	0.00
PLANTS PER PLANT		0.00	1.00	0.10	0.12	0.00
PODS PER PLANT		0.00	0.10	1.00	-0.08	0.00
100 SEED WEIGHT		0.00	0.12	-0.08	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 117 EXPERIMENT 302 YEAR 1976

REGION - ASIA
 SITE - LAHORE
 COUNTRY - PAKISTAN
 LATITUDE - 31 DEG. 30 MIN. N
 ELEVATION - 230 M
 LONGITUDE - 74 DEG. 20 MIN. E
 COOPERATOR - TECHNICAL SERVICES ASSOCIATION AGRICULTURAL PROJECT
 DATE PLANTED - FEBRUARY 21, 1977
 DATE HARVESTED - JUNE, 1977
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 18.0, P 46.0
 AMOUNT OF MOISTURE - 175 MM
 NUMBER OF IRRIGATIONS - 5

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	CLARK 63	2181.22	40.50	116.00	0.00	0.00	0.00	0.00	63.63	1.00
4	CUTLER 71	2135.98	46.25	121.25	0.00	0.00	0.00	0.00	63.88	1.00
5	WILLIAMS	2062.96	40.25	109.00	0.00	0.00	0.00	0.00	54.25	1.00
10	COLUMBUS	1930.40	44.00	128.25	0.00	0.00	0.00	0.00	67.00	1.00
1	CALLAND	1793.87	43.00	123.00	0.00	0.00	0.00	0.00	57.50	1.00
2	WOODWORTH	1571.62	41.75	106.00	0.00	0.00	0.00	0.00	57.63	1.00
13	ANSOY 71	1494.63	42.00	110.75	0.00	0.00	0.00	0.00	48.38	1.00
14	HODGSON	1466.85	39.25	88.00	0.00	0.00	0.00	0.00	40.00	1.00
9	BEESON	1443.83	43.75	106.75	0.00	0.00	0.00	0.00	46.38	1.00
16	STEELE	1393.03	40.00	88.00	0.00	0.00	0.00	0.00	41.50	1.00
8	WELLS	1139.82	39.25	106.75	0.00	0.00	0.00	0.00	37.00	1.00
12	CORSOY	1135.06	39.75	101.00	0.00	0.00	0.00	0.00	41.00	1.00
15	HARK	885.82	39.75	108.25	0.00	0.00	0.00	0.00	46.38	1.00
11	ESEX	879.47	48.50	153.00	0.00	0.00	0.00	0.00	73.75	1.00
7	FORREST	757.24	54.75	153.00	0.00	0.00	0.00	0.00	76.13	1.00
3	HILL	534.19	59.00	153.00	0.00	0.00	0.00	0.00	74.75	1.00
	GRAND MEAN	1425.38	43.86	117.00	0.00	0.00	0.00	0.00	55.57	1.00
	STANDARD ERROR OF A VARIETY MEAN	209.11	1.46	1.18	0.00	0.00	0.00	0.00	2.10	0.00
	COEFFICIENT OF VARIATION	29.34%	6.64%	2.01%	0.00%	0.00%	0.00%	0.00%	7.55%	0.00%
	5% LST VARIETY MEANS (*****=NS)	595.62	4.15	3.35	0.00	0.00	0.00	0.00	5.98	0.00

C O R R E L A T I O N S
 (+ - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	1.00	-0.41++	0.00	0.00	0.00	0.00	0.00	0.11	0.00
DAYS TO FLOWER		-0.41++	1.00	0.77++	0.00	0.00	0.00	0.00	0.65++	0.00
DAYS TO MATURITY		-0.31+	0.77++	1.00	0.00	0.00	0.00	0.00	0.83++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.11	0.65++	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.83++	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
PLANTS HARVEST		0.58++	-0.16	-0.31+	0.00	0.00	0.00	0.00	-0.06	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		-0.42++	0.69++	0.81++	0.00	0.00	0.00	0.00	0.52++	0.00

TABLE 117 EXPERIMENT 302 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	CLARK 63	1.00	106.75	0.00	0.00	2.75
4	CUTLER 71	1.00	134.25	0.00	0.00	2.75
5	WILLIAMS	1.00	127.75	0.00	0.00	2.00
10	COLUMBUS	1.00	94.00	0.00	0.00	2.50
1	CALLAND	1.00	99.50	0.00	0.00	3.25
2	WOODWORTH	1.00	89.50	0.00	0.00	1.25
13	AMSOY 71	1.00	93.00	0.00	0.00	3.00
14	HODGSON	1.00	143.75	0.00	0.00	1.50
9	BEESON	1.00	105.50	0.00	0.00	3.00
16	STEELE	1.00	138.00	0.00	0.00	1.25
8	WELLS	1.00	94.00	0.00	0.00	3.25
12	CORSOY	1.00	118.00	0.00	0.00	2.75
15	HARK	1.00	44.25	0.00	0.00	2.00
11	ESSEX	1.00	77.75	0.00	0.00	4.25
7	FORREST	1.00	97.50	0.00	0.00	4.75
3	HILL	1.00	91.25	0.00	0.00	5.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	103.42	0.00	0.00	2.83
COEFFICIENT OF VARIATION		0.00	13.10	0.00	0.00	0.28
5% LSD VARIETY MEANS (*****=NS)		0.00	25.33%	0.00%	0.00%	19.95%
		0.00	37.31	0.00	0.00	0.80
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD KG/HA		0.00	0.58++	0.00	0.00	-0.42++
DAYS TO FLOWER		0.00	-0.16	0.00	0.00	0.69++
DAYS TO MATURITY		0.00	-0.31+	0.00	0.00	0.81++
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.06	0.00	0.00	0.52++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	0.00	0.00	-0.20
PLANTS		0.00	0.00	1.00	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	-0.20	0.00	0.00	1.00

TABLE 118 EXPERIMENT 141 YEAR 1976

REGION - ASIA COUNTRY - PAKISTAN
 SITE - LAHORE ELEVATION - 229 M
 LATITUDE - 31 DEG. 30 MIN. N LONGITUDE - 74 DEG. 20 MIN. E
 COOPERATOR - TECHNICAL SERVICES ASSOCIATION AGRICULTURAL PROJECT
 DATE PLANTED - JULY 29, 1976 DATE HARVESTED - NOVEMBER, 1976
 SOIL TYPE - CLAY
 AMOUNT OF MOISTURE - 555 MM
 NUMBER OF IRRIGATIONS - 4

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSON	221.10	36.50	93.75	0.00	0.00	0.00	0.00	0.00	1.00
11	DAVIS	215.35	37.25	92.00	0.00	0.00	0.00	0.00	0.00	1.00
3	BRAGG	193.80	36.00	93.75	0.00	0.00	0.00	0.00	0.00	1.00
9	WILLIAMS	119.08	33.25	88.25	0.00	0.00	0.00	0.00	0.00	1.00
8	BOSSIER	110.02	39.00	92.00	0.00	0.00	0.00	0.00	0.00	1.00
14	BEESON	100.17	35.00	87.00	0.00	0.00	0.00	0.00	0.00	1.00
1	CALLAND	88.01	34.25	90.75	0.00	0.00	0.00	0.00	0.00	1.00
6	PICKETT 71	87.07	39.50	92.00	0.00	0.00	0.00	0.00	0.00	1.00
10	CLARK 63	86.80	35.50	92.00	0.00	0.00	0.00	0.00	0.00	1.00
16	ESSEX	79.76	34.75	87.00	0.00	0.00	0.00	0.00	0.00	1.00
2	WOODWORTH	72.89	34.75	87.00	0.00	0.00	0.00	0.00	0.00	1.00
12	FORREST	71.49	36.25	92.00	0.00	0.00	0.00	0.00	0.00	1.00
13	WELLS	66.02	35.75	87.00	0.00	0.00	0.00	0.00	0.00	1.00
15	COLUMBUS	65.29	38.25	95.50	0.00	0.00	0.00	0.00	0.00	1.00
7	CUTLER 71	50.90	35.50	92.00	0.00	0.00	0.00	0.00	0.00	1.00
5	HILL	30.47	40.25	87.00	0.00	0.00	0.00	0.00	0.00	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		103.64	36.36	90.56	0.00	0.00	0.00	0.00	0.00	1.00
COEFFICIENT OF VARIATION		19.41	1.24	0.94	0.00	0.00	0.00	0.00	0.00	0.00
5% 1ST VARIETY MEANS (*****=NS)		37.46%	6.84%	2.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
		55.29	3.54	2.68	0.00	0.00	0.00	0.00	0.00	0.00
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	-0.18	0.29+	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		-0.18	1.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.29+	0.22	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.11	-0.25	-0.04	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 118 EXPERIMENT 141 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	1.00	0.00	0.00	0.00	2.50
11	DAVIS	1.00	0.00	0.00	0.00	1.50
3	BRAGG	1.00	0.00	0.00	0.00	1.75
9	WILLIAMS	1.00	0.00	0.00	0.00	1.25
8	BOSSIER	1.00	0.00	0.00	0.00	1.25
14	BEESON	1.00	0.00	0.00	0.00	3.00
1	CALLAND	1.00	0.00	0.00	0.00	3.50
6	PICKETT 71	1.00	0.00	0.00	0.00	1.25
10	CLARK 63	1.00	0.00	0.00	0.00	1.50
16	ESSEX	1.00	0.00	0.00	0.00	1.00
2	WOODHORTH	1.00	0.00	0.00	0.00	2.50
12	FORREST	1.00	0.00	0.00	0.00	1.25
13	WELLS	1.00	0.00	0.00	0.00	2.25
15	COLUMBUS	1.00	0.00	0.00	0.00	1.75
7	CUTLER 71	1.00	0.00	0.00	0.00	2.25
5	HILL	1.00	0.00	0.00	0.00	1.25
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	0.00	0.00	0.00	1.86
COEFFICIENT OF VARIATION		0.00	0.00	0.00	0.00	0.28
5% 1SD VARIETY MEANS (*****=NS)		0.00	0.00	0.00	0.00	29.95%
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.00	0.00	0.00	0.11
DAYS TO FLOWER		0.00	0.00	0.00	0.00	-0.25
DAYS TO MATURITY		0.00	0.00	0.00	0.00	-0.04
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	0.00	0.00	0.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	0.00	0.00	0.00
PODS PER	PLANT	0.00	0.00	1.00	0.00	0.00
100 SEED	WEIGHT	0.00	0.00	0.00	1.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 119 EXPERIMENT 78 YEAR 1976

REGION - ASIA COUNTRY - PAKISTAN
 SITE - MIRWAH ELEVATION - 20 M
 LATITUDE - 25 DEG. N LONGITUDE - 65 DEG. E
 COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL
 DATE PLANTED - JULY 10, 1976 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - SANDY LOAM
 NUMBER OF IRRIGATIONS - 4
 SUBSTITUTE VARIETY - HAMPTON 266A

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSOM	2392.14	0.00	103.00	0.00	0.00	0.00	0.00	34.00	0.00
3	BRAGG	2228.78	0.00	100.50	0.00	0.00	0.00	0.00	43.30	0.00
8	BOSSIER	2077.08	0.00	96.50	0.00	0.00	0.00	0.00	42.05	0.00
6	PICKETT 71	1960.39	0.00	100.50	0.00	0.00	0.00	0.00	28.95	0.00
11	DAVIS	1913.72	0.00	93.00	0.00	0.00	0.00	0.00	36.15	0.00
12	FOREST	1867.04	0.00	86.00	0.00	0.00	0.00	0.00	29.00	0.00
15	HAMPTON 266A	1727.01	0.00	103.00	0.00	0.00	0.00	0.00	31.90	0.00
16	ESSEX	1610.32	0.00	86.00	0.00	0.00	0.00	0.00	28.35	0.00
9	WILLIAMS	1400.28	0.00	79.00	0.00	0.00	0.00	0.00	38.50	0.00
5	HILL	1283.59	0.00	79.00	0.00	0.00	0.00	0.00	26.25	0.00
10	CLARK 63	1225.24	0.00	84.25	0.00	0.00	0.00	0.00	33.10	0.00
1	CALLAND	1155.23	0.00	86.00	0.00	0.00	0.00	0.00	39.10	0.00
7	CUTLER 71	1096.89	0.00	84.25	0.00	0.00	0.00	0.00	32.10	0.00
2	WOODWORTH	961.86	0.00	79.00	0.00	0.00	0.00	0.00	33.30	0.00
13	WELLS	816.83	0.00	79.00	0.00	0.00	0.00	0.00	24.25	0.00
14	BEESON	781.82	0.00	86.00	0.00	0.00	0.00	0.00	34.55	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1531.14	0.00	89.06	0.00	0.00	0.00	0.00	33.43	0.00
COEFFICIENT OF VARIATION		167.44	0.00	1.98	0.00	0.00	0.00	0.00	2.15	0.00
5% LSD VARIETY MEANS (*****=NS)		21.87%	0.00%	4.44%	0.00%	0.00%	0.00%	0.00%	12.84%	0.00%
		476.93	0.00	5.63	0.00	0.00	0.00	0.00	6.11	0.00
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)										
YIELD KG/HA		1.00	0.00	0.63++	0.00	0.00	0.00	0.00	0.32+	0.00
DAYS TO FLOWER		0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.63++	0.00	1.00	0.00	0.00	0.00	0.00	0.24	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.32+	0.00	0.24	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.26+	0.00	-0.16	0.00	0.00	0.00	0.00	0.16	0.00
PLANTS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		-0.44++	0.00	-0.18	0.00	0.00	0.00	0.00	0.15	0.00
QUALITY OF SEED		-0.46++	0.00	-0.24	0.00	0.00	0.00	0.00	-0.01	0.00

TABLE 119 EXPERIMENT 78 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSON	0.00	134.25	0.00	15.40	2.00
3	BRAGG	0.00	133.00	0.00	13.51	2.25
8	BOSSLER	0.00	122.25	0.00	13.91	2.00
6	PICKETT 71	0.00	130.75	0.00	13.94	2.00
11	DAVIS	0.00	136.50	0.00	15.06	2.00
12	FORREST	0.00	127.50	0.00	11.70	2.00
15	HAMPTON 266A	0.00	37.25	0.00	15.76	2.00
16	ESSEX	0.00	128.25	0.00	14.57	2.00
9	WILLIAMS	0.00	119.25	0.00	15.76	2.00
5	HILL	0.00	142.75	0.00	14.18	2.00
10	CLARK 63	0.00	124.25	0.00	15.61	2.00
1	CALLAND	0.00	110.00	0.00	18.37	2.50
7	CUTLER 71	0.00	125.75	0.00	18.34	2.00
2	WOODWORTH	0.00	115.25	0.00	15.32	2.00
13	WELLS	0.00	99.00	0.00	14.91	3.00
14	BEESON	0.00	111.00	0.00	21.91	3.00
	GRAND MEAN	0.00	118.56	0.00	15.51	2.17
	STANDARD ERROR OF A VARIETY MEAN	0.00	8.94	0.00	0.39	0.09
	COEFFICIENT OF VARIATION	0.00%	15.08%	0.00%	5.03%	8.62%
	5% LSD VARIETY MEANS (*****=NS)	0.00	25.46	0.00	1.11	0.27
C O R R E L A T I O N S						
	YIELD KG/HA	0.00	0.26+	0.00	-0.44++	-0.46++
	DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00
	DAYS TO MATURITY	0.00	-0.16	0.00	-0.18	-0.24
	NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.00	0.16	0.00	0.15	-0.01
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	0.00	-0.16	-0.17
	PODS PER PLANT	0.00	0.00	1.00	0.00	0.00
	100 SEED WEIGHT	0.00	-0.16	0.00	1.00	0.47++
	QUALITY OF SEED	0.00	-0.17	0.00	0.47++	1.00

(+ - PROB=.05) ++ - PROB=.01)

TABLE 120 EXPERIMENT 105 YEAR 1976

REGION - ASIA
 SITE - SWAT
 LATITUDE - 36 DEG. 46 MIN. N
 COOPERATOR - SYED BAD SHAH
 DATE PLANTED - JUNE 18, 1976
 SOIL TYPE - SILTY LOAM
 FERTILIZER USED (KG/HA) - N 20.21, P 22.72
 AMOUNT OF MOISTURE - 196 MM
 NUMBER OF IRRIGATIONS - 5
 SUBSTITUTE VARIETY - LEE 74

COUNTRY - PAKISTAN
 ELEVATION - 904 M
 LONGITUDE - 72 DEG. 21 MIN. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	SWIFT	3650.79	35.50	92.00	0.00	0.00	0.00	0.00	108.00	1.00
12	HODGSON	3509.01	36.25	92.00	0.00	0.00	0.00	0.00	92.25	1.00
3	CUTLER 71	3485.38	41.25	109.00	0.00	0.00	0.00	0.00	91.00	1.75
9	LEE 74	3449.94	59.50	125.00	0.00	0.00	0.00	0.00	91.50	1.00
14	STEELE	3414.50	36.25	97.00	0.00	0.00	0.00	0.00	86.25	1.00
8	BEESON	3331.79	38.50	109.00	0.00	0.00	0.00	0.00	85.50	1.25
2	WOODWORTH	3326.21	37.50	109.00	0.00	0.00	0.00	0.00	89.25	1.75
4	WILLIAMS	3201.83	37.50	109.00	0.00	0.00	0.00	0.00	96.75	1.25
10	CORSOY	3119.12	38.00	109.00	0.00	0.00	0.00	0.00	87.00	1.50
16	ALTONA	3083.68	34.75	92.00	0.00	0.00	0.00	0.00	91.25	1.00
7	WELLS	3035.59	37.75	97.00	0.00	0.00	0.00	0.00	79.00	1.00
11	AMSOY 71	3023.77	36.50	109.00	0.00	0.00	0.00	0.00	94.75	1.50
13	HARK	2729.23	39.50	97.00	0.00	0.00	0.00	0.00	96.00	1.00
5	CLARK 63	2386.60	40.50	109.00	0.00	0.00	0.00	0.00	102.25	2.00
6	FORREST	2150.30	56.25	125.00	0.00	0.00	0.00	0.00	81.25	1.00
1	CALLAND	2091.23	37.50	109.00	0.00	0.00	0.00	0.00	100.25	2.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		3061.81	40.19	105.56	0.00	0.00	0.00	0.00	92.02	1.31
COEFFICIENT OF VARIATION		146.42	0.38	0.00	0.00	0.00	0.00	0.00	2.92	0.16
5% LSE VARIETY MEANS (*****=NS)		9.56%	1.88%	0.00%	0.00%	0.00%	0.00%	0.00%	6.35%	24.43%
		417.07	1.07	0.00	0.00	0.00	0.00	0.00	8.32	0.46
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	-0.19	-0.31+	0.00	0.00	0.00	0.00	-0.04	-0.32++
DAYS TO FLOWER		-0.19	1.00	0.80++	0.00	0.00	0.00	0.00	-0.23	-0.14
DAYS TO MATURITY		-0.31+	0.80++	1.00	0.00	0.00	0.00	0.00	-0.19	0.23
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT		-0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HEIGHT		-0.23	-0.19	0.23	0.00	0.00	0.00	0.00	1.00	0.24
LODGING		-0.32++	-0.14	0.23	0.00	0.00	0.00	0.00	0.24	1.00
SHATTER		0.17	-0.58++	-0.40++	0.00	0.00	0.00	0.00	-0.08	0.09
PLANTS		0.20	-0.23	-0.46++	0.00	0.00	0.00	0.00	0.06	-0.29+
PODS PER PLANT		-0.27+	0.19	0.30+	0.00	0.00	0.00	0.00	0.26+	0.34++
100 SEED WEIGHT		-0.01	-0.52++	-0.24	0.00	0.00	0.00	0.00	0.16	0.23
QUALITY OF SEED		-0.55++	0.07	0.13	0.00	0.00	0.00	0.00	-0.07	0.09

TABLE 120 EXPERIMENT 105 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	SWIFT	2.00	192.00	56.75	18.58	2.00
12	HODGSON	2.00	160.50	63.00	18.75	1.00
3	CUTLER 71	1.50	157.75	65.75	21.68	1.00
9	LEE 74	1.00	158.00	82.50	17.65	1.00
14	STEELE	2.00	195.25	56.75	20.35	1.00
8	BEESON	2.00	131.00	64.25	21.20	2.00
2	WOODWORTH	2.00	127.75	77.25	18.40	1.00
4	WILLIAMS	2.00	167.75	59.00	21.20	1.00
10	CORSOY	2.00	168.00	70.00	18.88	1.75
16	ALTONA	2.00	200.75	55.00	19.83	1.00
7	WELLS	2.00	191.00	59.00	19.38	3.00
11	AMSOY 71	2.00	159.50	63.75	20.40	2.00
13	HARK	1.25	168.25	71.75	20.10	2.00
5	CLARK 63	2.00	157.25	72.50	19.05	1.00
6	FORREST	1.50	141.50	58.50	16.68	3.00
1	CALLAND	1.50	151.00	89.00	21.83	4.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.80	164.20	66.55	19.62	1.73
COEFFICIENT OF VARIATION		0.14	12.58	6.25	0.39	0.06
5% LSD VARIETY MEANS (*****=NS)		15.13%	15.33%	18.78%	3.93%	7.21%
		0.39	35.85	17.80	1.10	0.18
C O R R E L A T I O N S (+ - PROB=-.05 ++ - PROB=-.01)						
YIELD	KG/HA	0.17	0.20	-0.27+	-0.01	-0.55++
DAYS TO FLOWER		-0.58++	-0.23	0.19	-0.52++	0.07
DAYS TO MATURITY		-0.40++	-0.46++	0.30+	-0.24	0.13
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	-0.08	0.06	0.26+	0.16	-0.07
LODGING		0.09	-0.29+	0.34++	0.23	0.09
SHATTER		1.00	0.09	-0.14	0.16	-0.15
PLANTS	HARVEST	0.09	1.00	-0.22	0.04	-0.06
PODS PER	PLANT	-0.14	-0.22	1.00	0.14	0.06
100 SEED	WEIGHT	0.16	0.04	0.14	1.00	0.05
QUALITY	OF SEED	-0.15	-0.06	0.14	0.05	1.00

TABLE 121 EXPERIMENT 70 YEAR 1976

REGION - ASIA

SITE - SWAT

LATITUDE - 36 DEG. 46 MIN. N

COOPERATOR - SYED BAD SHAH

DATE PLANTED - JULY 23, 1976

SOIL TYPE - SILTY LOAM

FERTILIZER USED (KG/HA) - N 20.21, P 22.72

AMOUNT OF MOISTURE - 199 MM

NUMBER OF IRRIGATIONS - 3

SUBSTITUTE VARIETY - LEE 74

COUNTRY - PAKISTAN

ELEVATION - 904 M

LONGITUDE - 72 DEG. 21 MIN. E

DATE HARVESTED - NOVEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	DAVIS	3261.03	47.00	113.25	0.00	0.00	0.00	0.00	48.00	1.00
3	BRAGG	3024.60	46.75	102.00	0.00	0.00	0.00	0.00	59.25	1.00
15	LEE 74	3024.60	43.75	102.00	0.00	0.00	0.00	0.00	50.25	1.00
6	PICKETT 71	2835.57	44.50	106.50	0.00	0.00	0.00	0.00	39.75	1.00
9	WILLIAMS	1134.23	33.00	103.50	0.00	0.00	0.00	0.00	32.75	1.00
12	FORREST	756.15	45.00	108.00	0.00	0.00	0.00	0.00	34.75	1.00
7	CUTLER 71	708.89	36.75	102.00	0.00	0.00	0.00	0.00	38.50	1.00
2	WOODWORTH	661.63	34.50	102.00	0.00	0.00	0.00	0.00	29.75	1.00
16	ESSEX	519.85	37.25	109.75	0.00	0.00	0.00	0.00	23.50	1.00
14	BEESON	425.34	31.75	108.00	0.00	0.00	0.00	0.00	27.00	1.00
8	BOSSIER	378.08	46.75	115.00	0.00	0.00	0.00	0.00	25.00	1.00
5	HILL	378.08	44.25	108.00	0.00	0.00	0.00	0.00	28.00	1.00
13	WELLS	307.19	30.75	115.00	0.00	0.00	0.00	0.00	29.75	1.00
10	CLARK 63	165.41	34.75	102.00	0.00	0.00	0.00	0.00	29.75	1.00
4	RANSON	141.78	44.75	102.00	0.00	0.00	0.00	0.00	31.00	1.00
1	CALLAND	94.52	35.25	108.00	0.00	0.00	0.00	0.00	35.00	1.00
GRAND MEAN		1113.56	39.80	106.69	0.00	0.00	0.00	0.00	35.13	1.00
STANDARD ERROR OF A VARIETY MEAN		80.06	0.38	0.84	0.00	0.00	0.00	0.00	1.47	0.00
COEFFICIENT OF VARIATION		14.38%	1.89%	1.58%	0.00%	0.00%	0.00%	0.00%	8.36%	0.00%
5% LSD VARIETY MEANS (*****=NS)		228.04	1.07	2.40	0.00	0.00	0.00	0.00	4.18	0.00
C O R R E L A T I O N S										
		(+ - PROB=-.05 +- - PROB=-.01)								
YIELD	KG/HA	1.00	0.53++	-0.11	0.00	0.00	0.00	0.00	0.82++	0.00
DAYS TO FLOWER		0.53++	1.00	0.07	0.00	0.00	0.00	0.00	0.45++	0.00
DAYS TO MATURITY		-0.11	0.07	1.00	0.00	0.00	0.00	0.00	-0.28+	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	0.82++	0.45++	-0.28+	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		-0.20	-0.30+	-0.35++	0.00	0.00	0.00	0.00	-0.26+	0.00
HARVEST		0.77++	0.45++	-0.15	0.00	0.00	0.00	0.00	0.82++	0.00
PLANTS PER PLANT		0.86++	0.37++	-0.31+	0.00	0.00	0.00	0.00	0.83++	0.00
PODS PER 100 SEED		0.08	-0.33++	-0.51++	0.00	0.00	0.00	0.00	0.21	0.00
QUALITY OF SEED		-0.74++	-0.35++	0.53++	0.00	0.00	0.00	0.00	-0.68++	0.00

TABLE 121 EXPERIMENT 70 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	DAVIS	1.00	121.75	33.25	16.38	1.00
3	BRAGG	1.00	131.25	40.50	18.53	1.00
15	LEE 74	1.00	117.25	36.50	18.20	1.00
6	PICKETT 71	2.00	77.00	27.00	17.18	1.00
9	WILLIAMS	2.00	77.50	22.75	20.75	2.00
12	FORREST	2.00	80.25	17.25	14.78	3.00
7	CUTLER 71	2.00	76.50	18.00	21.48	3.00
2	WOODWORTH	2.00	70.00	23.25	17.28	1.00
16	ESSEX	1.00	58.50	11.25	14.58	5.00
14	BEESON	2.00	65.25	15.25	20.75	4.00
8	BOSSIER	1.00	70.00	11.25	15.88	4.00
5	HILL	2.00	67.25	13.00	14.50	4.00
13	WELLS	1.00	62.75	12.25	14.70	5.00
10	CLARK 63	2.00	76.75	17.50	17.60	2.00
4	RANSOM	1.00	58.75	13.00	17.38	3.00
1	CALLAND	1.00	66.75	10.75	18.88	4.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.50	79.84	20.17	17.42	2.75
COEFFICIENT OF VARIATION		0.00	6.15	2.18	0.57	0.00
5% LSD VARIETY MEANS (*****NS)		0.00	15.41	21.63	6.49	0.00
		0.00	17.52	6.21	1.61	0.00
C O R R E L A T I O N S						
			(+ - PROB=-.05		++ - PROB=-.01)	
YIELD	KG/HA	-0.20	0.77++	0.86++	0.08	-0.74++
DAYS TO FLOWER		-0.30+	0.45++	0.37++	-0.33++	-0.35++
DAYS TO MATURITY		-0.35++	-0.15	-0.31+	-0.51++	0.53++
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	-0.26+	0.82++	0.83++	0.21	-0.68++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	-0.24	-0.09	0.26+	-0.17
PLANTS	HARVEST	-0.24	1.00	0.76++	0.10	-0.63++
PODS PER	PLANT	-0.09	0.76++	1.00	0.20	-0.79++
100 SEED	WEIGHT	0.26+	0.10	0.20	1.00	-0.28+
QUALITY	OF SEED	-0.17	-0.63++	-0.79++	-0.28+	1.00

TABLE 122 EXPERIMENT 106 YEAR 1976

REGION - ASIA
 SITE - TANDOJAM
 LATITUDE - 25 DEG. N
 COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL, N. AHAMED, A.H. SOOMRO
 DATE PLANTED - JUNE 5, 1976
 SOIL TYPE - SANDY LOAM
 FERTILIZER USED (KG/HA) - N 101.1, P 84.3
 AMOUNT OF MOISTURE - 63 MM
 NUMBER OF IRRIGATIONS - 6
 LOCAL VARIETY - LOPPA

COUNTRY - PAKISTAN
 ELEVATION - 2 M
 LONGITUDE - 63 DEG. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	LOPPA	2604.69	26.25	92.00	0.00	5.50	0.00	0.11	78.90	0.00
6	FORREST	2521.34	27.75	110.25	0.00	20.00	0.00	0.35	39.68	0.00
5	CLARK 63	2354.64	23.00	91.25	0.00	13.00	0.00	0.21	64.50	0.00
1	CALLAND	2208.77	18.50	90.75	0.00	7.25	0.00	0.13	68.23	0.00
4	WILLIAMS	2208.77	20.00	88.25	0.00	14.50	0.00	0.26	69.45	0.00
3	CUTLER 71	2187.94	18.50	89.50	0.00	17.75	0.00	0.31	70.10	0.00
2	WOODWORTH	1854.54	16.25	83.50	0.00	14.50	0.00	0.30	59.78	0.00
7	WELLS	1396.11	17.00	89.75	0.00	16.50	0.00	0.33	47.40	0.00
11	ANSOY 71	1312.76	17.00	92.50	0.00	5.25	0.00	0.07	42.85	0.00
13	HARK	1229.41	17.00	80.00	0.00	11.25	0.00	0.18	43.45	0.00
10	CORSOY	1125.22	17.00	85.00	0.00	17.50	0.00	0.24	28.68	0.00
15	SWIFT	1125.22	17.00	70.75	0.00	1.75	0.00	0.03	32.77	0.00
14	STEELE	1021.04	17.00	72.50	0.00	6.00	0.00	0.10	35.15	0.00
12	HODGSON	770.99	17.00	87.50	0.00	1.75	0.00	0.02	28.13	0.00
8	BEESON	687.64	17.00	104.00	0.00	5.75	0.00	0.08	52.90	0.00
16	ALTONA	604.29	17.00	73.00	0.00	3.50	0.00	0.11	24.50	0.00
GRAND MEAN		1575.84	18.95	87.53	0.00	10.11	0.00	0.18	49.15	0.00
STANDARD ERROR OF A VARIETY MEAN		158.73	2.01	2.81	0.00	2.55	0.00	0.05	3.60	0.00
COEFFICIENT OF VARIATION		20.15%	21.17%	6.42%	0.00%	50.43%	0.00%	61.70%	14.65%	0.00%
5% LSC VARIETY MEANS (*****=NS)		452.14	5.71	8.00	0.00	7.26	0.00	0.15	10.26	0.00
C O R R E L A T I O N S										
(+ - PROB=-.05 +- - PROB=-.01)										
YIELD	KG/HA	1.00	0.44++	0.38++	0.00	0.45++	0.00	0.41++	0.76++	0.00
DAYS TO FLOWER	0.44++	1.00	0.35++	0.35++	0.00	0.11	0.00	0.15	0.24	0.00
DAYS TO MATURITY	0.38++	0.35++	1.00	1.00	0.00	0.32++	0.00	0.27+	0.34++	0.00
NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.45++	0.11	0.32++	0.32++	0.00	1.00	0.00	0.87++	0.30+	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.41++	0.15	0.27+	0.27+	0.00	0.87++	0.00	1.00	0.37++	0.00
PLANT HEIGHT	0.76++	0.24	0.34++	0.34++	0.00	0.30+	0.00	0.37++	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
HARVEST	0.09	-0.06	-0.02	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS PER 100 SEED	0.71++	0.45++	0.61++	0.61++	0.00	0.33++	0.00	0.34++	0.63++	0.00
PLANT WEIGHT	-0.41++	-0.35++	0.07	0.07	0.00	-0.08	0.00	-0.05	-0.15	0.00
QUALITY OF SEED	-0.66++	-0.42++	-0.20	-0.20	0.00	-0.15	0.00	-0.16	-0.59++	0.00

TABLE 122 EXPERIMENT 106 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
9	LOPPA	0.00	136.25	61.50	12.98	2.00
6	FORREST	0.00	114.25	78.75	13.65	2.75
5	CLARK 63	0.00	145.50	47.50	15.93	2.75
1	CALLAND	0.00	130.00	46.50	16.23	3.00
4	WILLIAMS	0.00	122.50	50.00	15.29	2.00
3	CUTLER 71	0.00	126.25	50.75	17.80	3.75
2	WOODWORTH	0.00	100.00	55.75	15.07	3.00
7	WELLS	0.00	136.25	41.50	17.92	4.50
11	AMSOY 71	0.00	130.75	41.00	17.34	4.50
13	HARK	0.00	146.75	37.50	15.85	4.25
10	CORSOY	0.00	130.00	22.25	16.04	4.25
15	SWIFT	0.00	143.75	26.50	13.63	3.00
14	STEELE	0.00	122.75	24.25	16.05	3.50
12	HODGSON	0.00	136.50	26.25	18.63	4.75
8	BEESON	0.00	114.50	45.25	19.41	4.00
16	ALTONA	0.00	100.00	18.50	18.70	4.75
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	127.25	42.11	16.28	3.55
COEFFICIENT OF VARIATION		0.00	11.76	5.66	0.62	0.25
5% ISL VARIETY MEANS (*****=NS)		0.00	18.48%	26.89%	7.57%	14.30%
		0.00	*****	16.13	1.75	0.72
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)						
YIELD KG/HA		0.00	0.09	0.71++	-0.41++	-0.66++
DAYS TO FLOWER		0.00	-0.06	0.45++	-0.35++	-0.42++
DAYS TO MATURITY		0.00	-0.02	0.61++	0.07	-0.20
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	-0.00	0.33++	-0.08	-0.15
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	-0.11	0.34++	-0.05	-0.16
PLANT HEIGHT		0.00	-0.04	0.63++	-0.15	-0.59++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.23	-0.07	0.11
PODS PER PLANT		0.00	-0.23	1.00	-0.33++	-0.52++
100 SEED WEIGHT		0.00	-0.07	-0.33++	1.00	0.61++
QUALITY OF SEED		0.00	0.11	-0.52++	0.61++	1.00

TABLE 123

EXPERIMENT 46

YEAR 1976

REGION - ASIA
 SITE - TANDOJAM
 LATITUDE - 25 DEG. N
 COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL, N. AHMED, A.H. SOOMRO
 DATE PLANTED - JUNE 22, 1976
 SOIL TYPE - SANDY LOAM
 FERTILIZER USED (KG/HA) - N 101.1, P 84.3
 AMOUNT OF MOISTURE - 63 MM
 NUMBER OF IRRIGATIONS - 5
 SUBSTITUTE VARIETY - HAMPTON 266A

COUNTRY - PAKISTAN
 ELEVATION - 63 M
 LONGITUDE - 63 DEG. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	COBB	3156.88	36.50	117.75	0.00	0.00	0.00	0.00	57.35	0.00
8	BOSSIER	3031.86	36.50	117.00	0.00	0.00	0.00	0.00	45.60	0.00
3	BRAGG	2969.34	35.75	115.25	0.00	0.00	0.00	0.00	51.58	0.00
13	IMPROVED PELICAN	2833.90	41.25	110.50	0.00	5.25	0.00	0.35	109.05	0.00
4	RANSOM	2813.06	35.00	117.25	0.00	0.00	0.00	0.00	46.83	0.00
6	PICKETT 71	2667.20	34.25	115.50	0.00	0.00	0.00	0.00	38.25	0.00
12	DAVIS	2625.52	35.75	110.00	0.00	10.00	0.00	0.00	43.55	0.00
15	HAMPTON 266A	2594.27	41.75	117.75	0.00	0.00	0.00	0.00	47.05	0.00
14	FORREST	1969.14	32.00	95.75	0.00	18.25	0.00	0.91	37.35	0.00
16	CLARK 63	1906.63	24.25	90.00	0.00	28.00	0.00	1.12	56.60	0.00
9	ESSEX	1896.21	28.00	95.50	0.00	22.75	0.00	0.89	32.48	0.00
1	WILLIAMS	1771.19	25.00	86.75	0.00	26.75	0.00	1.29	62.98	0.00
1	CALLAND	1771.19	29.25	97.50	0.00	20.50	0.00	1.18	75.70	0.00
7	CUTLER 71	1625.32	24.75	86.25	0.00	23.50	0.00	0.84	47.25	0.00
2	WOODWORTH	1208.57	25.00	82.25	0.00	17.00	0.00	0.94	54.50	0.00
5	HILL	1187.74	33.25	89.50	0.00	13.50	0.00	0.57	31.08	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		2259.57	32.39	102.78	0.00	11.59	0.00	0.53	52.32	0.00
COEFFICIENT OF VARIATION		248.77	2.41	2.82	0.00	5.97	0.00	0.28	5.46	0.00
5% LSD VARIETY MEANS (*****=NS)		22.02%	14.86%	5.50%	0.00%	102.95%	0.00%	106.10%	20.85%	0.00%
		708.61	6.85	8.04	0.00	17.00	0.00	0.80	15.54	0.00
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)										
YIELD		1.00	0.51++	0.73++	0.00	-0.48++	0.00	-0.44++	0.20	0.00
DAYS TO FLOWER		0.51++	1.00	0.84++	0.00	-0.63++	0.00	-0.64++	0.34++	0.00
DAYS TO MATURITY		0.73++	0.84++	1.00	0.00	-0.69++	0.00	-0.70++	0.17	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		-0.48++	-0.63++	-0.69++	0.00	1.00	0.00	0.92++	-0.08	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		-0.44++	-0.64++	-0.70++	0.00	0.92++	0.00	1.00	-0.02	0.00
PLANT		0.20	0.34++	0.17	0.00	-0.08	0.00	-0.02	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.22	0.03	-0.10	0.00	0.00	0.00	0.06	0.26+	0.00
PLANTS		0.69++	0.69++	0.70++	0.00	-0.46++	0.00	-0.42++	0.29+	0.00
PODS PER		0.12	-0.10	0.09	0.00	0.07	0.00	0.04	0.02	0.00
100 SEED		0.12	-0.11	-0.17	0.00	0.04	0.00	0.16	0.21	0.00
QUALITY OF SEED		-0.20	-0.11	-0.17	0.00	0.04	0.00	0.16	0.21	0.00

TABLE 123 EXPERIMENT 46 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	COBB	0.00	101.00	93.00	13.48	2.25
8	BOSSIER	0.00	91.00	79.00	15.69	2.00
3	BRAGG	0.00	106.25	73.00	14.37	2.00
13	IMPROVED PELICAN	0.00	128.00	86.75	14.85	2.25
4	RANSOM	0.00	107.00	54.25	17.03	2.00
6	PICKETT 71	0.00	105.50	59.25	13.45	2.00
12	DAVIS	0.00	119.75	65.75	16.44	2.00
15	HAPTON 266A	0.00	86.00	99.50	16.29	2.00
14	FORREST	0.00	109.25	54.25	12.28	2.25
10	CLARK 63	0.00	96.00	51.50	15.15	2.00
16	ESEX	0.00	85.50	52.00	14.15	2.00
9	WILLIAMS	0.00	121.25	42.50	15.08	2.00
1	CALLAND	0.00	97.00	49.00	15.58	2.50
7	CUTLER 71	0.00	112.75	35.00	16.75	2.00
2	WOODWORTH	0.00	108.00	44.75	14.58	2.50
5	HILL	0.00	112.25	46.50	13.04	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	105.41	61.63	14.89	2.11
COEFFICIENT OF VARIATION		0.00	9.89	5.31	0.48	0.15
5% LSD VARIETY MEANS (*****=NS)		0.00	18.77%	17.25%	6.49%	13.83%
		0.00	*****	15.14	1.38	*****

C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)

YIELD KG/HA	0.22	0.69++	0.12	-0.20
DAYS TO FLOWER	0.00	0.03	-0.10	-0.11
DAYS TO MATURITY	0.00	-0.10	0.70++	-0.17
NODULE NUMBER 1	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.03	-0.46++	0.04
NODULE WEIGHT 1	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.06	-0.42++	0.16
PLANT HEIGHT	0.00	0.26+	0.29+	0.21
LODGING	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	0.04	-0.10
PODS PER PLANT	0.00	0.04	1.00	-0.08
100 SEED WEIGHT	0.00	-0.05	-0.08	1.00
QUALITY OF SEED	0.00	-0.10	0.01	-0.13

TABLE 124 EXPERIMENT 43 YEAR 1976

REGION - ASIA COUNTRY - PAKISTAN
 SITE - UMERKOT ELEVATION - 29 M
 LATITUDE - 25 DEG. N LONGITUDE - 69 DEG. E
 COOPERATORS - A.H. CHAUDHRY, M.A. JALEEL
 DATE PLANTED - JULY 4, 1976 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - SANDY LOAM
 FERTILIZER USED (KG/HA) - N 83.2, P 29.4
 NUMBER OF IRRIGATIONS - 3
 SUBSTITUTE VARIETY - HAMPTON 266A

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSOM	2925.58	0.00	106.00	0.00	0.00	0.00	0.00	61.58	0.00
11	COBB	2813.06	0.00	108.00	0.00	0.00	0.00	0.00	69.80	0.00
3	BRAGG	2542.17	0.00	104.00	0.00	0.00	0.00	0.00	71.10	0.00
8	BOSSIER	2342.13	0.00	107.00	0.00	0.00	0.00	0.00	67.25	0.00
14	FORREST	2229.61	0.00	94.50	0.00	0.00	0.00	0.00	52.05	0.00
13	IMPROVED PELICAN	2229.61	0.00	109.00	0.00	0.00	0.00	0.00	105.35	0.00
12	DAVIS	2212.94	0.00	99.50	0.00	0.00	0.00	0.00	45.68	0.00
1	CALLAND	2158.76	0.00	88.25	0.00	0.00	0.00	0.00	57.73	0.00
10	CLARK 63	1992.06	0.00	87.00	0.00	0.00	0.00	0.00	57.75	0.00
6	PICKETT 71	1921.22	0.00	105.25	0.00	0.00	0.00	0.00	49.50	0.00
16	ESSEX	1850.37	0.00	90.75	0.00	0.00	0.00	0.00	40.60	0.00
9	WILLIAMS	1804.53	0.00	89.00	0.00	0.00	0.00	0.00	43.78	0.00
15	HAMPTON 266A	1737.85	0.00	108.00	0.00	0.00	0.00	0.00	50.30	0.00
2	WOODWORTH	1662.83	0.00	85.50	0.00	0.00	0.00	0.00	50.78	0.00
7	CUTLER 71	1379.44	0.00	87.00	0.00	0.00	0.00	0.00	44.43	0.00
5	HILL	1187.74	0.00	88.25	0.00	0.00	0.00	0.00	39.98	0.00
	GRAND MEAN	2061.87	0.00	97.31	0.00	0.00	0.00	0.00	56.73	0.00
	STANDARD ERROR OF A VARIETY MEAN	246.56	0.00	3.09	0.00	0.00	0.00	0.00	6.21	0.00
	COEFFICIENT OF VARIATION	23.92%	0.00%	6.35%	0.00%	0.00%	0.00%	0.00%	21.88%	0.00%
	5% LST VARIETY MEANS (*****NS)	702.29	0.00	8.80	0.00	0.00	0.00	0.00	17.68	0.00
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
	YIELD KG/HA	1.00	0.00	0.41++	0.00	0.00	0.00	0.00	0.42++	0.00
	DAYS TO FLOWER	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	DAYS TO MATURITY	0.41++	0.00	1.00	0.00	0.00	0.00	0.00	0.44++	0.00
	NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
	PLANT HEIGHT	0.42++	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HARVEST	0.31+	0.00	-0.24	0.00	0.00	0.00	0.00	-0.07	0.00
	PLANTS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100 SEED WEIGHT	-0.36++	0.00	-0.45++	0.00	0.00	0.00	0.00	-0.39++	0.00
	QUALITY OF SEED	-0.14	0.00	-0.03	0.00	0.00	0.00	0.00	-0.11	0.00

TABLE 124 EXPERIMENT 43 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	0.00	212.25	0.00	13.62	2.00
11	COBB	0.00	150.00	0.00	11.30	2.00
3	BRAGG	0.00	187.50	0.00	11.98	2.00
8	BOSSIER	0.00	145.25	0.00	11.69	2.00
14	FORREST	0.00	142.75	0.00	11.16	2.00
13	IMPROVED PELICAN	0.00	140.75	0.00	11.57	2.00
12	DAVIS	0.00	213.75	0.00	14.47	2.25
1	CALLAND	0.00	198.00	0.00	17.31	2.25
10	CLARK 63	0.00	184.50	0.00	13.71	2.00
6	PICKETT 71	0.00	144.00	0.00	11.88	2.00
16	ESSEX	0.00	170.25	0.00	12.86	2.00
9	WILLIAMS	0.00	207.50	0.00	15.26	2.00
15	HAMPTON 266A	0.00	78.00	0.00	15.80	2.25
2	WOODWORTH	0.00	176.25	0.00	15.95	2.00
7	CUTLER 71	0.00	132.75	0.00	17.83	2.25
5	HILL	0.00	158.75	0.00	14.02	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	165.14	0.00	13.77	2.06
COEFFICIENT OF VARIATION		0.00%	15.94	0.00	0.43	0.13
5% ISD VARIETY MEANS (*****=NS)		0.00	19.30%	0.00%	6.19%	12.26%
			45.40	0.00	1.21	*****
C O R R E L A T I O N S						
			(+ - PROB=.05		++ - PROB=.01)	
YIELD	KG/HA	0.00	0.31+	0.00	-0.36++	-0.14
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	-0.24	0.00	-0.45++	-0.03
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	-0.07	0.00	-0.39++	-0.11
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	0.00	0.09	-0.14
PODS PER	PLANT	0.00	0.00	1.00	0.00	0.00
100 SEED	WEIGHT	0.00	0.09	0.00	1.00	0.26+
QUALITY	OF SEED	0.00	-0.14	0.00	0.26+	1.00

TABLE 125 EXPERIMENT 28 YEAR 1976

REGION - ASIA
 SITE - LOS BANOS
 LATITUDE - 14 DEG. 10 MIN. N
 COOPERATOR - B.P.I. ECONOMIC GARDEN
 DATE PLANTED - JUNE 14, 1976
 SOIL TYPE - CLAY, PH 6.0
 FERTILIZER USED (KG/HA) - N 49.0, P 21.0, K 42.0
 AMOUNT OF MOISTURE - 856 MM
 LOCAL VARIETY - L-114

COUNTRY - PHILIPPINES
 ELEVATION - 15 M
 LONGITUDE - 121 DEG. 15 MIN. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
10	WILLIAMS	3491.11	23.00	88.00	83.50	393.25	0.05	1.56	80.10	1.00
7	CUTLER 71	3481.95	23.00	88.00	122.50	460.50	0.10	1.93	80.60	1.00
12	COBB	3405.68	30.00	100.75	183.25	652.25	0.23	3.83	55.80	1.00
1	CALLAND	3381.51	23.00	89.00	47.50	355.00	0.04	2.79	88.60	1.00
16	COLUMBUS	3338.58	23.00	89.00	115.50	572.50	0.10	2.44	79.02	1.00
2	WOODWORTH	3334.83	23.00	82.00	84.75	236.25	0.05	1.18	74.05	1.00
4	RANSOM	3149.50	25.00	98.00	175.75	426.00	0.18	1.90	48.50	1.00
11	CLARK 63	3056.44	23.00	88.00	115.75	326.00	0.09	1.48	80.93	1.25
6	PICKETT 71	3033.11	24.50	94.00	128.00	320.00	0.14	1.48	36.90	1.00
15	FORREST	2878.91	26.50	88.00	150.50	437.25	0.16	2.12	46.45	1.00
5	HILL	2822.23	27.75	87.25	149.00	368.75	0.05	1.68	41.68	1.00
3	BRAGG	2646.78	25.50	94.00	56.50	419.75	0.07	2.45	49.35	1.00
9	BOSSIER	2620.52	25.00	94.00	122.25	548.50	0.08	2.25	40.75	1.00
13	DAVIS	2296.29	30.00	94.00	197.00	450.25	0.39	2.85	53.55	1.00
14	IMPROVED PELICAN	2115.01	37.00	100.00	285.00	378.75	0.63	2.03	131.75	2.75
8	L-114	1921.63	41.00	116.50	803.50	651.00	2.77	3.27	106.78	3.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSL VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	-0.63++	-0.51++	-0.52++	-0.20	-0.52++	-0.18	-0.18	-0.57++
DAYS TO FLOWER		-0.63++	1.00	0.83++	0.84++	0.31+	0.82++	0.40++	0.46++	0.84++
DAYS TO MATURITY		-0.51++	0.83++	1.00	0.83++	0.47++	0.83++	0.47++	0.29+	0.69++
NODULE NUMBER 1		-0.52++	0.84++	0.83++	1.00	0.38++	0.97++	0.34++	0.42++	0.78++
NODULE NUMBER 2		-0.20	0.47++	0.47++	0.38++	1.00	0.36++	0.71++	-0.01	0.18
NODULE WEIGHT 1		-0.52++	0.82++	0.83++	0.97++	0.36++	1.00	0.36++	0.46++	0.79++
NODULE WEIGHT 2		-0.18	0.40++	0.47++	0.34++	0.71++	0.36++	1.00	0.04	0.22
PLANT		-0.18	0.46++	0.29+	0.42++	-0.01	0.46++	0.04	1.00	0.69++
LODGING		-0.57++	0.84++	0.69++	0.78++	0.18	0.79++	0.22	0.69++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS		0.28+	-0.44++	-0.32++	-0.39++	-0.20	-0.32++	-0.27+	-0.21	-0.41++
PODS PER PLANT		-0.49++	0.82++	0.80++	0.87++	0.35++	0.90++	0.39++	0.47++	0.77++
100 SEED WEIGHT		0.46++	-0.36++	-0.21	-0.10	-0.17	-0.11	-0.20	-0.01	-0.24
QUALITY OF SEED		0.21	-0.54++	-0.37++	-0.39++	-0.06	-0.38++	-0.18	-0.36++	-0.47++

TABLE 125 EXPERIMENT 28 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
10	WILLIAMS	1.00	156.25	27.00	18.50	2.75	40.7	27.8
7	CUTLER 71	1.00	170.00	32.75	18.50	3.00	44.3	25.8
12	COBB	1.00	134.75	49.25	15.50	2.00	38.7	26.6
1	CALLAND	1.00	139.50	45.75	16.50	2.75	39.5	24.5
16	COLUMBUS	1.00	134.25	46.50	14.50	3.00	41.5	26.5
2	WOODWORTH	1.00	138.25	44.25	16.00	2.00	45.3	28.4
4	RANSON	1.00	167.75	43.25	17.75	3.00	38.4	28.4
11	CLARK 63	1.00	156.50	31.50	18.00	2.75	40.1	26.8
6	PICKETT 71	1.00	153.25	36.00	14.75	2.75	39.6	27.7
15	FORREST	1.00	140.25	42.75	13.00	3.00	38.8	25.1
5	HILL	1.00	136.75	40.25	16.00	2.75	39.0	25.3
3	BAGG	1.00	151.00	46.25	13.00	2.75	39.1	25.8
9	BOSSIER	1.00	147.00	39.75	14.75	2.75	44.0	24.6
13	DAVIS	1.00	159.75	42.75	14.00	2.50	39.1	24.6
14	IMPROVED PELICAN	1.00	128.00	65.50	11.75	2.00	43.6	24.2
8	L-114	1.00	109.50	122.50	15.50	2.00	48.6	18.6

GRAND MEAN

STANDARD ERROR OF A VARIETY MEAN

COEFFICIENT OF VARIATION

5% 1ST VARIETY MEANS (*****=NS)

C O R R E L A T I O N S

(+ - PROB=.05 ** - PROB=.01)

YIELD	KG/HA	0.00	0.28+	-0.49++	0.46++	0.21
DAYS TO	FLOWER	0.00	-0.44++	0.82++	-0.36++	-0.54++
DAYS TO	MATURITY	0.00	-0.32++	0.80++	-0.21	-0.37++
NODULE	NUMBER 1	0.00	-0.39++	0.87++	-0.10	-0.39++
NODULE	NUMBER 2	0.00	-0.20	0.35++	-0.17	-0.06
NODULE	WEIGHT 1	0.00	-0.39++	0.90++	-0.11	-0.38++
NODULE	WEIGHT 2	0.00	-0.27+	0.39++	-0.20	-0.18
PLANT	HEIGHT	0.00	-0.21	0.47++	-0.01	-0.36++
LODGING		0.00	-0.41++	0.77++	-0.24	-0.47++
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.57++	0.24	0.30+
PODS PER	PLANT	0.00	-0.57++	1.00	-0.23	-0.41++
100 SEED	WEIGHT	0.00	0.24	-0.23	1.00	0.09
QUALITY	OF SEED	0.00	0.30+	-0.41++	0.09	1.00

TABLE 126

EXPERIMENT 140

YEAR 1976

REGION - ASIA
 SITE - ALUTHARAMA
 LATITUDE - 7 DEG. 30 MIN. N
 COOPERATOR - S.M. SANTHIRASIVAM
 DATE PLANTED - APRIL 24, 1976
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 NUMBER OF IRRIGATIONS - 31
 LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
 ELEVATION - 266 M
 LONGITUDE - 81 DEG. E
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
14	PB-1	2563.01	36.75	95.50	58.00	201.50	0.73	9.19	46.05	0.00
3	HARDEE	2837.99	35.25	98.75	61.00	128.25	1.08	9.00	30.33	0.00
12	BONUS	2292.12	29.75	99.75	41.25	83.50	0.46	3.33	54.80	0.00
5	BOSSIER	2208.77	39.50	102.25	53.00	182.00	1.43	9.56	49.15	0.00
7	DAVIS	2104.59	30.50	92.50	62.50	80.25	1.41	5.84	28.18	0.00
4	IMPROVED PELICAN	1854.54	37.25	100.00	70.50	144.50	1.01	5.31	79.45	0.00
6	BRAGG	1708.67	28.50	94.75	33.00	76.75	0.45	4.70	30.90	0.00
10	HILL	1687.84	31.75	89.00	51.50	62.75	0.54	2.91	26.63	0.00
15	SJ-2	1604.49	38.25	99.50	76.75	130.00	1.07	8.86	58.40	0.00
9	PORREST	1500.30	28.50	94.50	47.00	106.00	1.20	4.98	32.30	0.00
2	HAMPTON 266A	1500.30	30.00	97.75	63.75	120.25	0.52	6.79	27.65	0.00
8	TRACY	1500.30	29.00	94.75	49.50	72.75	1.07	4.11	32.00	0.00
11	CLARK 63	1229.41	34.75	89.25	37.25	70.00	1.19	4.34	47.13	0.00
13	WILLIAMS	1187.74	30.75	99.25	39.75	29.75	1.00	1.21	30.73	0.00
1	JUPITER	1104.39	40.00	125.00	49.50	106.50	0.45	3.84	54.38	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1765.63	33.37	98.17	52.95	106.32	0.91	5.60	41.87	0.00
COEFFICIENT OF VARIATION		252.69	0.69	1.88	14.35	30.18	0.39	1.98	2.88	0.00
5% LST VARIETY MEANS (*****=NS)		721.19	4.11%	3.84%	54.19%	56.78%	87.14%	70.69%	13.74%	0.00%
CORRELATIONS (+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.04	-0.13	0.38**	0.33**	0.35**	0.30+	0.12	0.00
DAYS TO FLOWER		0.04	1.00	0.51**	0.13	0.40**	0.02	0.26+	0.59**	0.00
DAYS TO MATURITY		-0.13	0.51**	1.00	0.12	0.26+	-0.06	0.08	0.36**	0.00
NODULE NUMBER 1		0.38**	0.13	0.12	1.00	0.55**	0.63**	0.52**	0.23	0.00
NODULE NUMBER 2		0.33**	0.40**	0.26+	0.55**	1.00	0.23	0.77**	0.34**	0.00
NODULE WEIGHT 1		0.35**	0.02	-0.06	0.63**	0.23	1.00	0.27+	0.11	0.00
NODULE WEIGHT 2		0.30+	0.26+	0.08	0.52**	0.77**	0.27+	1.00	0.18	0.00
PLANT HEIGHT		0.12	0.59**	0.36**	0.23	0.34**	0.11	0.18	1.00	0.00
LOGGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.17	0.06	-0.17	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS PER PLANT		0.42**	0.33**	0.02	0.13	0.01	-0.01	0.13	0.22	0.00
PODS PER 100 SEED		-0.01	-0.42**	0.02	0.05	-0.16	0.11	-0.25+	0.27+	0.00
QUALITY OF SEED		-0.11	-0.36**	-0.11	-0.04	-0.06	0.13	-0.09	-0.43**	0.00
									-0.21	0.00

TABLE 126 EXPERIMENT 140 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	PB-1	0.00	300.00	33.70	11.25	1.00
3	HARDEE	0.00	284.25	31.13	12.60	1.00
12	BONUS	0.00	300.00	34.13	12.50	1.00
5	BOSSIER	0.00	300.00	30.00	12.03	1.00
7	DAVIS	0.00	300.00	21.98	14.38	1.00
4	IMPROVED PELICAN	0.00	300.00	25.25	11.08	1.00
6	BRAGG	0.00	272.25	18.33	14.05	1.00
10	HILL	0.00	300.00	20.33	12.15	1.00
15	SJ-2	0.00	300.00	37.78	10.18	1.00
9	FORREST	0.00	300.00	18.70	10.75	3.00
2	HAMPTON 266A	0.00	300.00	27.60	14.88	1.00
8	TRACY	0.00	300.00	18.00	13.90	1.25
11	CLARK 63	0.00	300.00	17.43	14.10	1.00
13	WILLIAMS	0.00	272.25	12.08	15.33	1.25
1	JUPITER	0.00	293.75	18.35	12.83	1.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	294.83	24.32	12.80	1.17
COEFFICIENT OF VARIATION		0.00	10.69	2.83	0.47	0.09
5% LSD VARIETY MEANS (*****NS)		0.00	7.25%	23.24%	7.35%	15.83%
		0.00	*****	8.06	1.34	0.26
C O R R E L A T I O N S (+ - PROB=.05 + + - PROB=.01)						
YIELD	KG/HA	0.00	0.17	0.42++	-0.01	-0.11
DAYS TO FLOWER		0.00	0.06	0.33++	-0.42++	-0.36++
DAYS TO MATURITY		0.00	-0.17	0.02	0.02	-0.11
NODULE NUMBER 1		0.00	0.08	0.13	0.05	-0.04
NODULE NUMBER 2		0.00	0.01	0.33+	-0.16	-0.06
NODULE WEIGHT 1		0.00	-0.01	-0.03	0.11	0.13
NODULE WEIGHT 2		0.00	0.13	0.25+	-0.06	-0.09
PLANT	HEIGHT	0.00	0.22	0.27+	-0.43++	-0.21
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	0.08	-0.14	-0.09
PODS PER	PLANT	0.00	0.08	1.00	-0.40++	-0.22
100 SEED	WEIGHT	0.00	-0.14	-0.40++	1.00	-0.21
QUALITY	OF SEED	0.00	-0.09	-0.22	-0.21	1.00

TABLE 127 EXPERIMENT 174 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
15	COLUMBUS	1.00	300.00	11.90	17.08	1.00	38.5	21.9
4	RANSOM	1.00	300.00	12.03	17.25	1.00	38.1	24.3
11	COBB	1.00	300.00	14.25	16.40	1.00	36.6	24.3
12	DAVIS	1.00	300.00	11.43	15.68	1.00	39.7	22.0
9	WILLIAMS	1.00	300.00	8.80	18.15	1.00	37.8	23.0
13	IMPROVED PELICAN	1.00	300.00	16.05	12.73	1.00	39.6	22.3
14	FORREST	1.00	300.00	11.90	13.38	3.00	38.4	21.3
8	BOSSIER	1.00	300.00	11.20	15.60	1.00	40.1	21.1
10	CLARK 63	1.00	300.00	9.75	15.25	2.00	37.3	23.3
7	JUPITER	2.00	300.00	14.40	14.78	3.00	35.6	24.0
6	PICKETT 71	1.00	300.00	10.65	14.48	1.00	39.6	22.6
2	WOODWORTH	1.00	300.00	10.13	15.68	1.00	38.0	22.5
3	BRAGG	1.00	300.00	10.85	16.18	1.00	41.1	21.3
16	ESSEX	1.00	300.00	13.18	15.93	1.00	39.3	33.7
5	HILL	1.00	300.00	11.08	14.65	2.00	36.8	21.3
1	CALLAND	1.00	300.00	8.97	17.63	1.00	37.3	21.5
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.06	300.00	11.66	15.67	1.38		
COEFFICIENT OF VARIATION		0.00	0.00	1.00	0.59	0.00		
5% LSE VARIETY MEANS (*****=NS)		0.00	0.00	17.07%	7.51%	0.00%		
		0.00	0.00	2.83	1.68	0.00		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.03	0.00	0.36++	0.41++	-0.06		
DAYS TO FLOWER		0.03	0.00	-0.08	-0.06	-0.13		
DAYS TO MATURITY		0.98++	0.00	0.29+	-0.08	0.58++		
NODULE NUMBER 1		-0.13	0.00	0.09	-0.14	0.12		
NODULE NUMBER 2		0.02	0.00	0.01	-0.01	-0.10		
NODULE WEIGHT 1		-0.09	0.00	-0.04	-0.26+	0.14		
NODULE WEIGHT 2		0.06	0.00	-0.15	0.18	-0.05		
PLANT	HEIGHT	0.66++	0.00	0.29+	-0.03	0.39++		
LOGGING		1.00++	0.00	0.27+	-0.13	0.60++		
SHATTER		1.00	0.00	0.27+	-0.13	0.60++		
HARVEST		0.00	1.00	0.00	0.00	0.00		
PLANTS	PER PLANT	0.27+	0.00	1.00	-0.19	0.12		
PODS PER		-0.13	0.00	-0.19	1.00	-0.39++		
100 SEED	WEIGHT	0.60++	0.00	0.12	-0.39++	1.00		
QUALITY	OF SEED							

TABLE 128

EXPERIMENT 664

YEAR 1976

REGION - ASIA
 SITE - ANGUNKOLAPALESSA
 LATITUDE - 6 DEG. N
 COOPERATORS - A. SENTHINATHAN, R. RADHAKRISHNAN
 DATE PLANTED - MAY 8, 1976
 SOIL TYPE - SAND 58.4%, CLAY 41.6%, PH 6.0
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 961 MM
 NUMBER OF IRRIGATIONS - 16
 LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
 ELEVATION - 30 M
 LONGITUDE - 81 DEG. E
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
3	HARDEE	2540.51	28.00	88.00	89.25	248.25	0.56	3.27	38.65	1.00	
4	IMPROVED PELICAN	2267.95	28.00	85.00	80.50	106.50	0.85	1.82	66.68	2.00	
12	WOODWORTH	2237.53	19.00	77.00	103.75	201.00	0.59	3.57	46.10	2.00	
7	DAVIS	2165.85	25.00	82.00	111.50	190.50	0.67	3.94	37.70	2.00	
14	PB-1	2101.25	27.00	79.00	141.25	177.50	1.15	2.70	50.70	2.00	
15	SJ-2	2096.25	23.00	84.00	49.75	78.75	0.69	1.52	69.82	2.00	
2	HAMPTON 266A	2078.75	19.00	91.00	127.75	275.00	0.50	3.36	51.13	1.00	
6	BOSSIER	2067.91	31.00	86.00	262.50	218.25	1.28	2.19	60.08	1.00	
8	UNKNOWN	1949.56	22.00	85.00	59.25	118.50	0.41	2.11	83.75	2.00	
13	WILLIAMS	1948.31	20.00	77.00	160.50	220.75	0.52	2.83	54.50	2.00	
10	COLUMBUS	1890.79	23.00	92.00	86.25	103.25	0.83	2.17	54.05	2.00	
5	COBB	1743.27	21.00	84.00	61.25	152.00	0.16	1.51	34.10	2.25	
9	FORREST	1726.60	22.00	78.00	45.25	235.25	0.20	2.55	35.68	1.00	
11	CLARK 63	1235.66	19.00	72.00	111.00	126.00	0.84	2.37	55.65	2.00	
1	JUPITER	873.51	29.00	116.00	91.25	105.75	0.63	1.43	73.18	2.50	
GRAND MEAN											
1928.25											
STANDARD ERROR OF A VARIETY MEAN											
180.93											
COEFFICIENT OF VARIATION											
18.77%											
5% ISD VARIETY MEANS (*****=NS)											
516.39											
CORRELATIONS											
(+ - PROB=.05 ** - PROB=.01)											
YIELD	KG/HA	1.00	0.07	-0.31+	0.00	0.25	-0.07	0.24	-0.19	-0.35++	
DAYS TO FLOWER	1.00	0.48++	0.30+	0.30+	0.00	-0.09	0.43++	-0.18	0.19	-0.10	
DAYS TO MATURITY	0.31+	0.48++	1.00	-0.06	0.06	-0.20	-0.00	-0.28+	0.35++	0.16	
NODULE NUMBER 1	0.00	0.30+	-0.06	1.00	0.39++	0.65++	0.16	0.65++	-0.00	-0.23	
NODULE NUMBER 2	0.25	-0.09	-0.20	0.39++	1.00	-0.05	0.62++	0.61++	-0.54++	-0.61++	
NODULE WEIGHT 1	-0.07	0.43++	-0.05	0.65++	0.16	0.06	1.00	0.06	0.21	0.00	
NODULE WEIGHT 2	0.24	-0.18	-0.28+	0.16	0.62++	0.21	-0.44++	1.00	-0.27+	-0.27+	
PLANT	HEIGHT	-0.19	0.19	0.35++	-0.00	-0.54++	0.00	-0.27+	0.33++	1.00	
LODGING	-0.35++	-0.10	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS	HARVEST	-0.18	0.20	-0.07	0.11	-0.44++	0.32+	-0.22	0.58++	0.33+	
PODS PER	PLANT	0.22	0.05	-0.18	-0.26+	0.23	-0.28+	0.00	-0.26+	-0.29+	
100 SEED	WEIGHT	0.28+	-0.29+	-0.26+	0.25	0.47++	-0.15	0.48++	-0.51+	-0.17	
QUALITY	OF SEED	-0.21	-0.01	0.55++	-0.16	0.00	-0.31+	-0.24	-0.08	-0.14	

TABLE 128 EXPERIMENT 664 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	HARDEE	1.00	102.00	64.82	17.68	3.75
4	IMPROVED PELICAN	1.00	252.75	19.58	13.00	2.25
12	WOODWORTH	1.00	209.25	20.73	18.38	3.25
7	DAVIS	1.00	188.00	26.05	18.73	2.75
14	PB-1	1.00	287.50	17.08	12.80	1.00
15	SJ-2	1.00	280.00	27.78	12.68	3.00
2	HAMPTON 266A	1.00	118.75	42.43	16.10	4.00
6	BOSSIER	1.00	252.25	21.78	15.60	3.00
8	UNKNOWN	1.00	248.00	29.35	13.43	2.25
13	WILLIAMS	1.00	244.50	17.15	19.25	2.50
10	COLUMBUS	1.00	191.75	30.58	15.13	3.50
5	COBB	1.00	86.75	49.68	15.98	3.75
9	FORREST	1.00	198.25	20.88	13.73	4.00
11	CLARK 63	1.00	279.75	15.98	15.78	2.50
1	JUPITER	1.00	265.50	26.23	13.50	5.00
	GRAND MEAN	1.00	213.67	28.67	15.45	3.10
	STANDARD ERROR OF A VARIETY MEAN	0.00	13.06	2.86	0.50	0.29
	COEFFICIENT OF VARIATION	0.00%	12.23%	19.94%	6.50%	18.69%
	5% LSD VARIETY MEANS (*****=NS)	0.00	37.28	8.16	1.43	0.83
C O R R E L A T I O N S						
			(+ - PROB=.05	++ - PROB=.01)		
	YIELD KG/HA	0.00	-0.18	0.22	0.28+	-0.21
	DAYS TO FLOWER	0.00	0.20	0.05	-0.29+	-0.01
	DAYS TO MATURITY	0.00	-0.07	0.26+	-0.26+	0.55++
	NODULE NUMBER 1	0.00	0.11	-0.18	0.25	-0.16
	NODULE NUMBER 2	0.00	-0.44++	0.23	0.47+	0.00
	NODULE HEIGHT 1	0.00	0.32+	-0.28+	-0.15	-0.31+
	NODULE HEIGHT 2	0.00	-0.22	0.00	0.48++	-0.24
	PLANT HEIGHT	0.00	0.58++	-0.26+	-0.51+	-0.08
	LODGING	0.00	0.33+	-0.29+	-0.17	-0.14
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	-0.77++	-0.38++	-0.43++
	PODS PER PLANT	0.00	-0.77++	1.00	0.21	0.43++
	100 SEED WEIGHT	0.00	-0.38++	0.21	1.00	0.12
	QUALITY OF SEED	0.00	-0.43++	0.43++	0.12	1.00

TABLE 129 EXPERIMENT 84 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	ESSEX	1.00	252.50	14.05	13.90	2.00
1	CALLAND	1.00	212.50	7.40	17.50	2.00
9	BERSON	1.00	205.00	8.32	15.30	2.00
4	CUTLER 71	1.00	220.00	8.78	16.28	2.00
13	AMSOY 71	1.00	175.00	10.20	13.88	2.00
8	WELLS	1.00	217.50	9.50	12.40	2.00
6	CLARK 63	1.00	205.00	7.30	14.53	2.00
10	COLUMBUS	1.00	206.75	9.13	15.15	2.00
2	WOODWORTH	1.00	202.50	9.15	13.53	2.00
5	WILLIAMS	1.00	206.25	7.85	15.98	2.00
12	CORSOY	1.00	201.25	11.93	17.05	3.00
15	HARK	1.00	180.00	8.50	13.73	2.00
14	HODGSON	1.00	186.25	10.33	13.53	2.00
16	STEELE	1.00	187.50	9.85	12.30	2.00
3	HILL	1.00	209.25	14.18	11.70	3.00
7	FORREST	1.00	187.00	11.38	11.65	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	203.39	9.86	14.27	2.13
COEFFICIENT OF VARIATION		0.00	13.69	1.47	0.48	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	13.46%	29.86%	6.69%	0.00%
		0.00	*****	4.19	1.36	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		+ - PROB=.01)		
YIELD KG/HA		0.00	0.29+	0.41++	0.42++	-0.17
DAYS TO FLOWER		0.00	0.04	0.33++	-0.37++	0.39++
DAYS TO MATURITY		0.00	0.17	0.55++	-0.03	0.41++
NODULE NUMBER 1		0.00	0.05	0.23	0.37++	-0.17
NODULE NUMBER 2		0.00	0.11	0.40++	0.26+	-0.09
NODULE WEIGHT 1		0.00	0.11	0.13	0.36++	-0.18
NODULE WEIGHT 2		0.00	0.16	0.24	0.29+	-0.16
PLANT HEIGHT		0.00	0.21	0.52++	0.01	0.03
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.04	0.08	0.02
PODS PER PLANT		0.00	-0.04	1.00	-0.07	0.36++
100 SEED WEIGHT		0.00	0.08	-0.07	1.00	0.02
QUALITY OF SEED		0.00	0.02	0.36++	0.02	1.00

TABLE 130 EXPERIMENT 129 YEAR 1976

REGION - ASIA
 SITE - BANDARAWELA
 LATITUDE - 6 DEG. 50 MIN. N
 COOPERATOR - G.R. ALOYSIUS
 DATE PLANTED - NOVEMBER 9, 1976
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 452 MM
 NUMBER OF IRRIGATIONS - 1
 SUBSTITUTE VARIETIES - CUTLER 71, WELLS, BEESON, CORSOY, ANSOY 71, HODGSON, HARK, STEELE

COUNTRY - SRI LANKA
 ELEVATION - 1220 M
 LONGITUDE - 81 DEG. E
 DATE HARVESTED - FEBRUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
6	FORREST	1850.37	33.50	101.75	0.00	185.50	0.00	1.57	40.38	1.50
8	ESSEX	1750.35	32.00	100.50	0.00	193.50	0.00	2.01	40.05	1.50
7	COLUMBUS	1748.27	32.00	111.50	0.00	164.75	0.00	1.74	37.08	1.00
3	HILL	1625.32	45.00	101.75	0.00	105.00	0.00	1.28	43.18	2.00
4	WILLIAMS	1437.79	33.50	96.50	0.00	207.50	0.00	1.76	28.43	1.00
5	CLARK 63	1399.45	32.00	110.00	0.00	166.25	0.00	1.91	33.88	1.00
1	CALLAND	1379.44	32.00	110.25	0.00	101.50	0.00	1.68	32.25	1.00
9	CUTLER 71	1373.19	35.00	112.50	0.00	134.00	0.00	1.54	31.30	1.00
13	ANSOY 71	1248.17	32.00	95.75	0.00	176.75	0.00	1.33	23.78	1.00
2	WOODWORTH	1177.32	32.00	93.50	0.00	136.00	0.00	1.52	25.05	1.00
10	WELLS	1127.31	32.00	93.00	0.00	109.00	0.00	1.06	20.15	1.00
15	HARK	1118.97	33.50	96.25	0.00	182.75	0.00	1.44	25.30	1.00
16	STEELE	960.61	32.00	93.00	0.00	137.00	0.00	1.31	24.25	1.00
14	HODGSON	568.86	35.00	119.00	0.00	102.50	0.00	0.83	21.30	1.00
11	BEESON	339.65	36.50	119.00	0.00	132.75	0.00	1.64	28.98	1.00
12	CORSOY	75.01	38.25	119.00	0.00	153.25	0.00	1.34	21.68	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1198.76	34.14	104.58	0.00	149.25	0.00	1.50	29.81	1.13
COEFFICIENT OF VARIATION		187.90	1.16	3.18	0.00	25.97	0.00	0.17	1.72	0.10
5% LSD VARIETY MEANS (*****=NS)		31.35%	6.81%	6.08%	0.00%	34.80%	0.00%	23.16%	11.52%	17.53%
		535.23	3.31	9.06	0.00	*****	0.00	0.49	4.89	0.28
C O R R E L A T I O N S										
(+ - PROB=-.05 +- - PROB=-.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.07								
DAYS TO MATURITY		1.00								
NODULE NUMBER 1		-0.12								
NODULE NUMBER 2		0.26+								
NODULE WEIGHT 1		0.00								
NODULE WEIGHT 2		0.00								
PLANT		-0.01								
HEIGHT		0.00								
LOGGING		0.18								
SHATTER		0.48+								
HARVEST		0.09								
PLANTS		0.06								
PODS PER		1.00								
100 SEED		0.59+								
WEIGHT		-0.21								
QUALITY		0.08								
OF SEED		0.34+								
		-0.16								
		0.05								

TABLE 130 EXPERIMENT 129 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	FORREST	1.00	472.50	9.32	16.95	3.00
8	ESSEX	1.00	530.25	9.28	15.88	2.25
7	COLUMBUS	1.00	470.75	9.52	18.00	2.25
3	HILL	1.00	439.25	9.40	14.25	1.75
4	WILLIAMS	1.00	439.50	6.75	19.55	1.25
5	CLARK 63	1.00	454.25	8.32	15.75	2.00
1	CALLAND	1.00	496.75	7.42	19.08	2.25
9	CUTLER 71	1.00	474.00	9.80	18.38	2.00
13	AMSOY 71	1.00	384.00	8.55	17.40	3.00
2	WOODWORTH	1.00	470.50	7.65	15.75	2.50
10	WELLS	1.25	481.00	8.02	13.38	2.25
15	HARK	1.00	446.50	7.45	16.20	2.75
16	STEELE	1.00	376.00	6.65	16.78	2.50
14	HODGSON	1.00	451.00	5.43	19.60	3.25
11	BEESON	1.00	430.25	4.40	20.00	3.25
12	CORSOY	1.00	549.00	1.48	16.08	4.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.02	460.34	7.47	17.06	2.52
COEFFICIENT OF VARIATION		0.06	30.95	1.10	0.72	0.32
5% LSD VARIETY MEANS (*****=NS)		12.31%	13.45%	29.55%	8.41%	25.80%
		*****	88.15	3.14	2.04	0.92
C O R R E L A T I O N S						
			(+ - PROB=-.05		+ + - PROB=-.01)	
YIELD	KG/HA	-0.12	0.20	0.80++	0.04	-0.19
DAYS TO FLOWER		-0.07	0.12	-0.05	-0.05	0.09
DAYS TO MATURITY		-0.19	0.23	-0.11	0.41++	0.35++
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		-0.21	-0.07	0.01	-0.09	0.08
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		-0.27+	0.02	0.46++	0.20	0.09
PLANT	HEIGHT	-0.21	0.22	0.59++	0.12	-0.05
LODGING		-0.05	0.08	0.34++	-0.21	-0.16
SHATTER		1.00	-0.10	-0.08	-0.17	-0.07
PLANTS	HARVEST	-0.10	1.00	-0.05	-0.11	0.17
PODS PER	PLANT	-0.08	-0.05	1.00	-0.01	-0.14
100 SEED	WEIGHT	-0.17	-0.11	-0.01	1.00	0.11
QUALITY	OF SEED	-0.07	0.17	-0.14	0.11	1.00

TABLE 131

EXPERIMENT 175

YEAR 1976

REGION - ASIA
 SITE - BANDARAWELA
 LATITUDE - 6 DEG. 51 MIN. N
 COOPERATOR - G.R. ALOYSIUS
 DATE PLANTED - DECEMBER 27, 1976
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 150 MM
 COUNTRY - SRI LANKA
 ELEVATION - 1220 M
 LONGITUDE - 81 DEG. E
 DATE HARVESTED - APRIL, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
15	ESSEX	1578.12	51.00	109.00	114.50	140.25	1.04	2.38	23.22	1.00
5	HILL	1490.62	57.00	109.00	59.50	97.25	0.65	1.73	28.32	1.00
11	DAVIS	1487.50	57.00	109.00	71.25	142.00	1.05	2.22	22.95	1.00
12	IMPROVED PELICAN	1487.50	57.00	109.00	49.00	123.00	0.59	2.30	36.40	1.00
13	FORREST	1484.37	49.00	109.00	45.75	111.50	0.52	1.99	29.07	1.00
14	COLUMBUS	1387.50	49.00	109.00	70.00	89.00	0.71	1.54	24.27	1.00
1	CALLAND	1353.12	42.00	109.00	69.75	86.25	0.92	1.48	24.10	1.00
10	COBB	1293.75	49.00	109.00	74.75	106.50	1.04	1.96	21.22	1.00
4	RANSOM	1212.50	42.00	109.00	121.25	135.50	1.23	1.61	19.76	1.00
8	WILLIAMS	1190.62	45.00	109.00	128.75	102.50	1.02	1.34	21.30	1.00
9	CLARK 63	1184.37	45.00	109.00	97.50	113.50	1.12	1.62	24.34	1.00
7	BOSSIER	1150.00	42.00	109.00	99.75	94.00	1.16	1.55	18.56	1.00
6	PICKETT 71	1068.75	42.00	109.00	59.50	97.25	0.72	1.51	18.45	1.00
2	WOODWORTH	1062.50	42.00	109.00	72.50	102.50	0.82	1.11	21.10	1.00
3	BRAGG	843.75	45.00	109.00	93.50	134.00	1.00	2.14	23.85	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=-.05 ++ - PROB=-.01)										
YIELD	KG/HA	1.00	0.33++	0.00	-0.35++	0.24	0.07	0.56++	0.51++	0.00
DAYS TO FLOWER	0.33++	1.00	1.00	0.00	-0.27+	0.13	-0.27+	0.32+	0.51++	0.00
DAYS TO MATURITY	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	-0.35++	-0.27+	0.00	0.00	1.00	-0.03	0.68++	-0.26+	-0.40++	0.00
NODULE NUMBER 2	0.24	0.13	0.00	0.00	-0.03	1.00	0.25	0.71++	0.20	0.00
NODULE WEIGHT 1	0.07	-0.27+	0.00	0.00	0.68++	0.25	1.00	0.07	-0.26+	0.00
NODULE WEIGHT 2	0.56++	0.32+	0.00	0.00	-0.26+	0.71++	0.07	1.00	0.50++	0.00
PLANT	0.51++	0.51++	0.00	0.00	-0.40++	0.20	-0.26+	0.50++	1.00	0.00
LOGGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.30+	-0.19	0.00	0.00	-0.06	0.26+	0.24	0.26+	0.08	0.00
PODS PER PLANT	0.54++	0.65++	0.00	0.00	-0.37++	0.08	-0.28+	0.40++	0.61++	0.00
100 SEED WEIGHT	0.04	-0.48++	0.00	0.00	0.11	0.18	0.28+	0.16	-0.27+	0.00
QUALITY OF SEED	0.12	-0.04	0.00	0.00	-0.11	0.05	0.08	0.02	0.17	0.00

TABLE 131 EXPERIMENT 175 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	ESSEX	1.00	142.50	14.43	17.15	2.25
5	HILL	1.00	109.75	19.13	13.48	2.00
11	DAVIS	1.00	135.00	20.15	16.50	2.50
12	IMPROVED PELICAN	1.00	131.50	22.80	12.68	2.25
13	FORREST	1.00	111.25	18.65	15.43	2.50
14	COLUMBUS	1.00	123.25	21.63	16.53	2.00
1	CALLAND	1.00	161.75	13.20	17.68	2.75
10	COBB	1.00	107.75	15.28	16.80	2.00
4	RANSOM	1.00	131.25	11.43	17.28	2.25
8	WILLIAMS	1.00	135.50	11.23	18.03	2.00
9	CLARK 63	1.00	139.00	14.38	17.38	2.00
7	BOSSIER	1.00	119.25	13.53	15.43	2.00
6	PICKETT 71	1.00	122.25	10.10	17.53	2.50
2	WOODWORTH	1.00	134.75	12.80	16.45	2.00
3	BRAGG	1.00	136.25	10.23	21.03	2.50
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	129.40	15.26	16.62	2.23
COEFFICIENT OF VARIATION		0.00	7.43	1.58	0.62	0.20
5% LSE VARIETY MEANS (*****=NS)		0.00	11.48%	20.74%	7.40%	17.48%
			21.20	4.52	1.76	*****
C O R R E L A T I O N S (+ - PROB=.05 + + - PROB=.01)						
YIELD	KG/HA	0.00	0.30+	0.54++	0.04	0.12
DAYS TO FLOWER		0.00	-0.19	0.65++	-0.48++	-0.04
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	-0.06	-0.37++	0.11	-0.11
NODULE NUMBER 2		0.00	0.26+	0.08	0.18	0.05
NODULE WEIGHT 1		0.00	0.24	-0.28+	0.28+	0.08
NODULE WEIGHT 2		0.00	0.26+	0.40++	0.16	0.02
PLANT	HEIGHT	0.00	0.08	0.61++	-0.27+	0.17
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.17	0.30+	0.26+
PODS PER	PLANT	0.00	-0.17	1.00	-0.39++	-0.01
100 SEED	WEIGHT	0.00	0.30+	-0.39++	1.00	0.20
QUALITY	OF SEED	0.00	0.26+	-0.01	0.20	1.00

TABLE 132	EXPERIMENT 133	YEAR 1976
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REGION - ASIA
SITE - GANNORUWA
LATITUDE - 7 DEG. 15 MIN. N
COOPERATOR - C.D. DHARMASENA
DATE PLANTED - JUNE 29, 1976
SOIL TYPE - CLAY LOAM, PH 6.6
FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
AMOUNT OF MOISTURE - 586 MM
NUMBER OF IRRIGATIONS - 33
LOCAL VARIETIES - PB-1, SJ-2

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
3	HARDEE	2598.44	34.00	98.25	200.75	293.75	0.37	1.18	38.95	1.00
4	IMPROVED PELICAN	2566.35	35.00	95.00	130.00	363.75	0.25	1.03	69.82	1.00
15	SJ-2	2454.66	36.00	97.25	147.00	315.75	0.28	0.92	69.10	1.00
13	WILLIAMS	2246.28	25.00	88.00	167.75	312.75	0.24	1.23	43.98	1.00
7	DAVIS	2208.77	34.00	101.25	115.00	210.75	0.23	1.03	30.00	1.00
9	FORREST	2208.77	30.75	92.00	99.75	276.75	0.25	1.00	36.93	1.00
14	PB-1	2175.43	34.00	88.00	189.75	305.00	0.40	1.28	58.08	1.00
6	BAGG	2162.10	28.00	89.75	79.75	360.00	0.15	1.44	36.15	1.00
5	BOSSIER	2097.50	33.50	95.00	164.00	281.25	0.40	0.90	43.75	1.00
1	JUPITER	2054.58	44.00	113.50	169.50	319.25	0.34	1.10	78.85	2.00
12	BONUS	2035.82	25.00	79.00	87.50	318.75	0.13	1.12	40.28	1.00
11	CLARK 63	1973.31	25.00	79.00	83.00	154.00	0.12	0.52	41.35	1.00
2	HAMPTON 266A	1914.13	31.25	90.25	154.25	314.50	0.29	1.27	33.15	1.00
10	HILL	1864.96	33.00	88.00	125.00	296.00	0.26	1.34	41.23	1.00
8	TRACY	1754.52	26.00	79.00	213.50	301.75	0.27	1.28	35.63	1.00
	GRAND MEAN	2154.38	31.63	91.55	141.77	294.93	0.26	1.11	46.48	1.07
	STANDARD ERROR OF A VARIETY MEAN	291.97	0.39	0.91	26.23	51.87	0.07	0.24	3.42	0.00
	COEFFICIENT OF VARIATION	27.10%	2.46%	1.99%	37.00%	35.17%	50.12%	43.79%	14.71%	0.00%
5%	ISD VARIETY MEANS (*****=NS)	*****	1.11	2.60	74.86	*****	*****	*****	9.76	0.00
C O R R E L A T I O N S										
					(+ - PROB=.05		++ - PROB=.01)			
	YIELD	KG/HA	0.14	0.20	0.18	0.24	0.19	0.29+	0.40++	-0.05
	DAYS TO FLOWER	1.00	1.00	0.88++	0.18	0.09	0.30+	-0.00	0.61++	0.65++
	DAYS TO MATURITY	0.20	0.88++	1.00	0.15	0.05	0.28+	-0.01	0.47++	0.65++
	NODULE NUMBER 1	0.18	0.18	0.15	1.00	0.46++	0.83++	0.62++	0.19	0.11
	NODULE NUMBER 2	0.24	0.09	0.05	0.46++	1.00	0.43++	0.75++	0.23	0.06
	NODULE WEIGHT 1	0.19	0.30+	0.28+	0.83++	0.43++	1.00	0.61++	0.26+	0.11
	NODULE WEIGHT 2	0.29+	-0.00	-0.01	0.62++	0.75++	0.61++	1.00	0.05	-0.01
	PLANT HEIGHT	0.40++	0.61++	0.47++	0.19	0.23	0.26+	0.05	1.00	0.54++
	LOGGING	-0.05	0.65++	0.65++	0.11	0.06	0.11	-0.01	0.54++	1.00
	SHATTER	0.16	0.09	0.23	0.01	-0.12	0.09	0.03	-0.18	-0.05
	HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PODS PER PLANT	0.47++	0.35++	0.18	0.27+	0.20	0.28+	0.19	0.66++	0.24
	100 SEED WEIGHT	0.28+	-0.38++	-0.07	-0.08	-0.08	-0.20	0.11	-0.34++	-0.06
	QUALITY OF SEED	0.03	0.19	0.33++	-0.06	0.02	-0.06	0.03	0.14	0.66++

TABLE 132 EXPERIMENT 133 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	HARDEE	1.00	300.00	19.25	15.80	1.50
4	IMPROVED PELICAN	1.00	300.00	20.20	13.33	1.00
15	SJ-2	1.00	300.00	23.35	13.60	1.00
13	WILLIAMS	1.00	300.00	10.00	19.88	2.25
7	DAVIS	1.50	300.00	13.33	18.78	2.75
9	FOREST	1.00	300.00	14.75	14.28	1.25
14	PB-1	1.00	300.00	24.10	11.13	1.00
6	BAGG	1.00	300.00	13.20	17.70	2.00
5	BOSSIER	1.00	300.00	12.70	14.93	1.25
1	JUPITER	1.00	300.00	22.08	15.20	4.50
12	BONUS	1.00	300.00	18.65	16.83	3.00
11	CLARK 63	1.00	300.00	17.35	16.13	1.75
2	HAMPTON 266A	1.00	300.00	14.83	18.00	1.50
10	HILL	1.00	300.00	14.33	14.88	1.25
8	TRACY	1.00	300.00	16.85	16.38	1.50
GRAND MEAN						
			1.03	17.00	15.79	1.83
STANDARD ERROR OF A VARIETY MEAN			0.07	1.76	0.76	0.31
COEFFICIENT OF VARIATION			14.43%	20.68%	9.67%	34.26%
5% LSD VARIETY MEANS (*****=NS)			0.21	5.02	2.18	0.90
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD KG/HA		0.16	0.00	0.47++	0.28+	0.03
DAYS TO FLOWER		0.09	0.00	0.35++	-0.38++	0.19
DAYS TO MATURITY		0.23	0.00	0.18	-0.07	0.33++
NODULE NUMBER 1		0.01	0.00	0.27+	-0.08	-0.06
NODULE NUMBER 2		-0.12	0.00	0.20	-0.08	0.02
NODULE WEIGHT 1		0.09	0.00	0.28+	-0.20	-0.06
NODULE WEIGHT 2		0.03	0.00	0.19	0.11	0.03
PLANT HEIGHT		-0.18	0.00	0.66++	-0.34++	0.14
LODGING		-0.05	0.00	0.24	-0.06	0.66++
SHATTER		1.00	0.00	-0.05	0.20	0.29+
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		-0.05	0.00	1.00	-0.29+	0.03
100 SEED WEIGHT		0.20	0.00	-0.29+	1.00	0.35++
QUALITY OF SEED		0.29+	0.00	0.03	0.35++	1.00

TABLE 133

EXPERIMENT 12

YEAR 1976

REGION - ASIA
 SITE - GANNORUWA
 LATITUDE - 7 DEG. 15 MIN. N
 COOPERATOR - C.D. DHARMASENA
 DATE PLANTED - JULY 1, 1976
 SOIL TYPE - CLAY LOAM, PH 6.6
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 585 MM
 NUMBER OF IRRIGATIONS - 33

COUNTRY - SRI LANKA
 ELEVATION - 457 M
 LONGITUDE - 81 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
12	DAVIS	3803.12	31.50	99.50	144.00	265.75	0.25	1.47	38.65	1.50
14	FORREST	3728.12	31.25	94.75	134.25	198.50	0.17	1.03	44.20	1.00
11	COBB	3543.75	30.00	99.25	128.50	255.50	0.20	1.39	39.38	1.25
16	ESSEX	3331.25	29.50	94.50	186.50	277.00	0.32	0.97	37.28	1.00
6	PICKETT 71	3281.25	30.50	94.25	198.25	312.25	0.34	1.39	30.78	1.25
13	IMPROVED PELICAN	3203.12	38.00	95.50	184.75	296.75	0.31	1.27	77.98	1.00
1	CALLAND	3153.12	30.25	94.00	62.00	197.00	0.11	1.62	47.98	1.25
15	COLUMBUS	3081.25	31.00	92.50	106.75	246.25	0.19	1.11	49.85	1.00
5	HILL	3015.62	35.25	93.50	122.00	188.50	0.17	1.04	40.60	1.00
3	BRAGG	3000.00	30.00	95.25	122.00	278.50	0.20	0.90	37.25	2.00
9	WILLIAMS	2984.37	28.00	86.00	104.75	191.75	0.15	0.99	48.65	1.00
8	BOSSIER	2900.00	33.00	97.75	127.25	307.25	0.27	1.27	36.85	1.25
4	RANSOM	2856.25	30.00	101.75	196.50	292.00	0.19	0.95	31.65	1.75
10	CLARK 63	2750.00	30.25	86.00	73.00	151.50	0.11	0.72	43.40	1.00
2	WOODWORTH	2415.62	28.50	77.00	77.50	144.25	0.11	0.55	39.70	1.00
7	JUPITER	2140.62	42.00	109.00	203.50	298.25	0.27	1.09	77.95	3.25
GRAND MEAN										
3074.22										
STANDARD ERROR OF A VARIETY MEAN										
200.91										
COEFFICIENT OF VARIATION										
13.07%										
5% LSD VARIETY MEANS (*****=NS)										
572.28										
C O R R E L A T I O N S										
{+ - PROB=.05 ++ - PROB=.01}										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.27+		0.12	0.06	0.18	0.28+	0.17	0.05	-0.17
DAYS TO MATURITY		1.00	0.51++		0.35++	0.14	0.25+	0.06	0.59++	0.33++
NODULE NUMBER 1		0.06	0.51++	1.00	0.50++	0.50++	0.39++	0.26+	0.26+	0.44++
NODULE NUMBER 2		0.18	0.35++	0.50++	1.00	0.48++	0.75++	0.16	0.19	0.28+
NODULE WEIGHT 1		0.28+	0.14	0.50++	0.48++	1.00	0.58++	0.56++	0.12	0.15
NODULE WEIGHT 2		0.17	0.25+	0.39++	0.75++	0.58++	1.00	0.37++	0.22	0.07
PLANT HEIGHT		0.05	0.06	0.26+	0.16	0.56++	0.37++	1.00	0.07	-0.05
LODGING		-0.17	0.59++	0.26+	0.19	0.12	0.22	0.07	1.00	0.23
SHATER		0.31+	0.33++	0.44++	0.28+	0.15	0.07	-0.05	0.23	1.00
PLANTS HARVEST		0.00	-0.08	0.20	-0.01	0.07	0.06	0.22	-0.04	-0.03
PODS PER PLANT		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03
100 SEED WEIGHT		0.39++	0.38++	0.19	0.35++	0.24	0.46++	0.23	0.44++	-0.03
QUALITY OF SEED		-0.36++	-0.47++	0.16	-0.25+	0.03	-0.10	0.17	-0.39++	0.01
		0.26+	0.48++	0.17	0.17	0.17	-0.08	0.03	0.15	0.48++

TABLE 133 EXPERIMENT 12 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
12	DAVIS	1.25	200.00	18.93	21.25	1.25
14	FORREST	1.00	200.00	20.98	17.85	1.00
11	COBB	1.75	200.00	22.75	21.30	1.75
16	ESSEX	1.00	200.00	21.77	18.15	1.00
6	PICKETT 71	1.00	200.00	16.68	19.45	1.00
13	IMPROVED PELICAN	1.00	200.00	26.78	15.58	1.00
1	CALLAND	1.00	200.00	16.83	22.20	3.00
15	COLUMBUS	1.00	200.00	16.35	18.43	1.00
5	HILL	1.00	200.00	19.00	18.03	1.00
3	BRAGG	1.00	200.00	14.83	20.83	2.00
9	WILLIAMS	1.00	200.00	13.68	20.55	1.00
8	BOSSIER	1.00	200.00	17.55	19.65	2.00
4	RANSOM	1.00	200.00	16.80	21.28	4.00
10	CLARK 63	1.00	200.00	16.73	18.78	1.00
2	WOODWORTH	1.00	200.00	20.45	17.23	2.00
7	JUPITER	1.00	200.00	22.78	16.58	4.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.06	200.00	18.93	19.19	1.75
COEFFICIENT OF VARIATION		0.09	0.00	1.24	0.61	0.09
5% LSD VARIETY MEANS (*****=NS)		16.45%	0.00%	13.13%	6.30%	10.43%
		0.25	0.00	3.54	1.72	0.26
C O R R E L A T I O N S						
			(+ - PROB=.05		++ - PROB=.01)	
YIELD	KG/HA	0.31+	0.00	0.14	0.39++	-0.36++
DAYS TO FLOWER		-0.08	0.00	0.38++	-0.47++	0.26+
DAYS TO MATURITY		0.20	0.00	0.19	0.16	0.48++
NODULE NUMBER 1		-0.01	0.00	0.35++	-0.25+	0.17
NODULE NUMBER 2		0.07	0.00	0.24	0.03	0.17
NODULE WEIGHT 1		0.06	0.00	0.46++	-0.10	-0.08
NODULE WEIGHT 2		0.22	0.00	0.23	0.17	0.03
PLANT HEIGHT		-0.04	0.00	0.44++	-0.39++	0.15
LODGING		-0.03	0.00	-0.03	0.01	0.48++
SHATTER		1.00	0.00	0.19	0.32++	0.0
HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.19	0.00	1.00	-0.43++	-0.01
100 SEED WEIGHT		0.32++	0.00	-0.43++	1.00	0.18
QUALITY OF SEED		0.0	0.00	-0.01	0.18	1.00

TABLE 134

EXPERIMENT 127

YEAR 1976

REGION - ASIA
 SITE - GANNORUWA
 LATITUDE - 7 DEG. 15 MIN. N
 COOPERATOR - CECIL D. DHARMASENA
 DATE PLANTED - DECEMBER 17, 1976
 SOIL TYPE - CLAY LOAM, PH 6.6
 FERTILIZER USED - N 20.0, P 80.0, K 80.0
 AMOUNT OF MOISTURE - 127 MM
 LOCAL VARIETIES - PB-1, LOCAL

COUNTRY - SRI LANKA
 ELEVATION - 457 M
 LONGITUDE - 81 DEG. E
 DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	FORREST	5375.62	29.25	98.00	174.25	499.50	0.53	3.88	42.87	1.00
12	DAVIS	4729.37	31.75	103.75	132.25	341.75	0.50	2.41	38.09	1.00
6	PICKETT 71	4334.37	28.75	90.50	191.50	285.50	0.77	2.53	34.29	1.50
1	CALLAND	4320.00	28.00	91.25	96.75	303.25	0.30	3.32	40.03	1.75
11	COBB	4258.12	28.25	108.00	141.75	346.75	0.52	3.41	31.24	1.00
13	IMPROVED PELICAN	4202.50	34.75	92.00	186.75	394.75	0.68	2.61	53.43	1.50
10	CLARK 63	4088.75	28.00	86.00	142.00	337.50	0.42	2.90	41.90	1.75
16	LOCAL	4042.50	52.25	116.00	360.50	520.75	2.12	1.89	106.37	3.50
7	JUPITER	4025.00	49.50	116.00	279.50	630.00	0.99	2.70	77.15	2.25
8	BOSSIER	3991.87	28.00	101.00	142.75	394.75	0.62	3.96	28.74	1.00
5	HILL	3910.00	32.75	90.50	245.00	441.75	0.58	2.65	44.34	2.00
9	WILLIAMS	3823.12	28.00	85.00	233.00	443.75	0.66	3.40	38.46	1.50
15	PB-1	3693.75	31.25	86.00	185.00	611.75	0.78	3.48	47.47	1.75
4	RANSOM	3560.62	28.00	108.00	125.75	441.00	0.56	2.92	27.40	1.00
3	BRAGG	3547.50	28.00	94.25	133.50	554.50	0.46	4.36	33.70	1.00
2	WOODWORTH	3050.00	28.00	81.00	141.75	277.50	0.38	2.24	33.06	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		4059.57	32.16	96.70	182.00	426.55	0.68	3.04	44.91	1.53
COEFFICIENT OF VARIATION		234.63	0.37	0.87	27.46	59.64	0.13	0.32	2.43	0.27
5% 1ST VARIETY MEANS (*****=NS)		11.56%	2.31%	1.81%	30.17%	27.97%	37.32%	21.14%	10.81%	34.68%
		668.32	1.06	2.49	78.21	169.89	0.36	0.92	6.91	0.76
C O R R E L A T I O N S										
(* - PROB=0.05 ** - PROB=0.01)										
YIELD	KG/HA	1.00	0.05	0.20	0.02	0.02	0.04	0.23	0.10	0.00
DAYS TO FLOWER		0.05	1.00	0.64**	0.69**	0.37**	0.74**	-0.33**	0.93**	0.68**
DAYS TO MATURITY		0.20	0.64**	1.00	0.31*	0.26*	0.48**	-0.08	0.50**	0.27*
NODULE NUMBER 1		0.02	0.69**	0.31*	1.00	0.27*	0.81**	-0.22	0.69**	0.48**
NODULE NUMBER 2		0.02	0.37**	0.26*	0.27*	1.00	0.35**	0.52**	0.34**	0.12
NODULE WEIGHT 1		0.04	0.74**	0.48**	0.81**	0.35**	1.00	-0.13	0.78**	0.56**
NODULE WEIGHT 2		0.23	-0.33**	-0.08	-0.22	0.52**	-0.13	1.00	-0.31*	-0.36**
PLANT		0.10	0.93**	0.50**	0.69**	0.34**	0.78**	-0.31*	1.00	0.78**
LODGING		0.00	0.68**	0.27*	0.48**	0.12	0.56**	-0.36**	0.78**	1.00
SHATTER		0.01	-0.16	-0.11	-0.15	0.06	-0.08	-0.01	-0.16	-0.22
PLANTS		-0.33**	0.01	-0.22	0.13	0.03	0.05	-0.02	0.04	0.15
PODS PER PLANT		0.16	0.72**	0.53**	0.59**	0.26*	0.83**	-0.20	0.81**	0.60**
100 SEED		0.24	-0.45**	0.00	-0.47**	-0.18	-0.63**	0.28*	-0.56**	-0.47**
QUALITY OF SEED		0.13	0.03	0.33**	-0.15	-0.07	-0.14	0.12	-0.00	0.01

TABLE 134 EXPERIMENT 127 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	PORREST	1.25	275.50	20.10	18.59	1.25	37.5	21.5
12	DAVIS	1.25	227.50	16.20	21.80	1.00	36.1	23.0
6	PICKETT 71	1.25	300.00	16.45	17.84	1.00	36.6	22.9
1	CALLAND	1.00	300.00	12.98	21.09	2.25	37.2	21.5
11	COBB	1.25	281.75	19.38	20.68	2.75	36.0	22.6
13	IMPROVED PELICAN	1.25	299.50	19.15	14.94	1.00	38.8	22.7
10	CLARK 63	1.00	300.00	14.08	18.00	1.00	36.0	23.2
16	LOCAL	1.00	297.50	47.60	9.20	1.25	42.9	16.6
7	JUPITER	1.00	290.00	18.30	20.73	1.75	38.2	23.7
8	BOSSIER	1.25	296.25	13.85	19.10	1.25	37.4	22.5
5	HILL	1.25	297.75	14.85	18.11	1.00	35.4	21.9
9	WILLIAMS	1.00	300.00	13.40	19.49	1.00	36.8	23.5
15	PB-1	1.50	296.00	20.38	13.06	1.00	39.4	18.2
4	RANSOM	1.25	298.50	15.58	17.88	1.00	34.7	25.7
3	BRAGG	1.25	298.75	13.03	21.15	1.50	38.7	22.2
2	WOODWORTH	1.25	300.00	11.73	16.41	1.00	34.4	22.4
GRAND MEAN								
		1.19	291.19	17.94	18.00	1.31		
STANDARD ERROR OF A VARIETY MEAN		0.21	7.38	1.40	0.53	0.17		
COEFFICIENT OF VARIATION		34.66%	5.07%	15.60%	5.85%	26.64%		
5% ISL VARIETY MEANS (*****=NS)		*****	21.03	3.99	1.50	0.50		
C O R R E L A T I O N S								
			(+ - PROB=.05		+ - PROB=.01)			
YIELD	KG/HA	0.01	-0.33++	0.16	0.24	0.13		
DAYS TO FLOWER		-0.16	0.01	0.72++	-0.45++	0.03		
DAYS TO MATURITY		-0.11	-0.22	0.53++	0.00	0.33++		
NODULE NUMBER 1		-0.15	0.13	0.59++	-0.47++	-0.15		
NODULE NUMBER 2		0.06	0.03	0.26+	-0.18	-0.07		
NODULE WEIGHT 1		-0.08	0.05	0.83++	-0.63++	-0.14		
NODULE WEIGHT 2		-0.01	-0.02	-0.20	0.28+	0.12		
PLANT	HEIGHT	-0.16	0.04	0.81++	-0.56++	-0.00		
LODGING		-0.22	0.15	0.60++	-0.47++	0.01		
SHATTER		1.00	-0.23	-0.01	0.00	-0.05		
PLANTS	HARVEST	-0.23	1.00	-0.03	-0.28+	0.00		
PODS PER	PLANT	-0.01	-0.03	1.00	-0.68++	-0.02		
100 SEED	WEIGHT	0.00	-0.28+	-0.68++	1.00	0.37++		
QUALITY	OF SEED	-0.05	0.00	-0.02	0.37++	1.00		

TABLE 135 EXPERIMENT 665

YEAR 1976

REGION - ASIA
 SITE - KILINCHCHI
 LATITUDE - 9 DEG. N
 COOPERATOR - N. KANAGANAYAGAM
 DATE PLANTED - MAY 20, 1976
 SOIL TYPE - SAND
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 80 MM
 NUMBER OF IRRIGATIONS - SEVERAL
 LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
 ELEVATION - 9 M
 LONGITUDE - 80 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	WILLIAMS	4542.78	24.00	99.00	10.75	54.50	0.51	2.24	60.25	1.00
6	BRAGG	4512.95	28.00	112.00	3.50	69.25	0.28	2.31	58.25	1.50
15	SJ-2	4418.97	37.00	117.00	26.50	412.50	0.56	2.43	67.00	3.00
7	DAVIS	4381.42	29.00	121.00	19.25	183.50	1.00	3.66	43.00	1.00
14	PB-1	4193.82	35.00	103.00	42.50	527.00	0.65	2.51	70.75	3.00
1	JUPITER	3902.34	43.00	134.00	61.00	332.25	0.97	4.42	82.75	3.50
3	HARDEE	3886.36	32.00	120.00	44.50	366.75	0.71	3.37	50.25	1.00
11	CLARK 63	3816.12	33.00	96.75	24.00	200.50	1.14	3.34	61.25	1.50
8	TRACY	3671.71	25.00	104.00	18.75	168.00	0.44	2.38	37.25	1.00
5	BOSSIER	3561.15	37.00	116.00	17.50	281.50	0.80	4.38	40.75	1.00
9	FORREST	3459.21	26.00	105.00	7.25	45.25	0.43	2.16	35.25	1.00
4	IMPROVED PELICAN	3387.01	35.00	117.00	2.25	191.25	0.60	2.47	105.00	4.00
2	HAMPTON 266A	2930.17	28.00	119.00	7.75	166.00	0.34	3.09	37.75	1.00
12	BONUS	2777.04	25.00	99.00	14.50	46.25	0.25	2.14	44.75	1.00
10	HILL	2538.07	29.00	104.00	18.50	22.00	0.50	2.20	35.50	1.00
GRAND MEAN		3731.94	31.07	111.12	21.23	204.43	0.61	2.87	55.32	1.70
STANDARD ERROR OF A VARIETY MEAN		233.14	0.00	0.16	12.06	79.09	0.10	0.34	2.50	0.19
COEFFICIENT OF VARIATION		12.49%	0.00%	0.29%	113.61%	77.37%	34.07%	23.38%	9.03%	21.98%
5% LST VARIETY MEANS (*****=NS)		665.38	0.00	0.46	*****	225.72	0.30	0.96	7.13	0.53

(+ - PROB=.05 ** - PROB=.01)

C O R R E L A T I O N S

YIELD	KG/HA	1.00	0.15	0.13	0.15	0.37++	0.25	0.13	0.29+	0.16
DAYS TO FLOWER	0.15	1.00	0.63++	0.63++	0.38++	0.53++	0.49++	0.49++	0.59++	0.69++
DAYS TO MATURITY	0.13	0.13	1.00	1.00	0.24	0.29+	0.25	0.49++	0.29+	0.38++
NODULE NUMBER 1	0.15	0.38++	0.24	1.00	1.00	0.35++	0.28+	0.26+	0.13	0.16
NODULE NUMBER 2	0.37++	0.53++	0.29+	0.35++	0.35++	1.00	0.34++	0.27+	0.30+	0.37++
NODULE WEIGHT 1	0.25	0.49++	0.25	0.28+	0.28+	0.34++	1.00	0.59++	0.23	0.11
NODULE WEIGHT 2	0.13	0.49++	0.49++	0.26+	0.26+	0.27+	0.59++	1.00	0.05	0.05
PLANT	0.29+	0.29+	0.29+	0.13	0.30+	0.30+	0.23	0.05	1.00	0.85++
LODGING	0.16	0.69++	0.38++	0.16	0.37++	0.37++	0.11	0.05	0.85++	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.42++	0.04	-0.32+	0.20	0.20	0.20	0.29+	-0.06	0.35++	0.24
PODS PER PLANT	-0.12	0.15	-0.12	0.08	0.02	0.02	0.02	-0.12	0.53++	0.39++
100 SEED WEIGHT	-0.02	-0.17	0.32+	0.03	-0.21	-0.21	-0.00	0.27+	-0.26+	-0.28+
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 135 EXPERIMENT 665 YEAR 1976 (CONTINUED)

ENTRY NUMBEER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	WILLIAMS	1.00	274.00	29.15	20.08	1.00
6	BRAGG	1.00	201.50	17.33	21.44	1.00
15	SJ-2	1.00	225.25	28.20	15.79	1.00
7	DAVIS	1.00	210.25	18.13	21.38	1.00
14	PB-1	1.00	268.50	27.05	13.08	1.00
1	JUPIER	1.00	222.25	29.20	23.22	1.00
3	HARDEE	1.00	211.00	26.63	17.04	1.00
11	CLARK 63	1.00	289.25	30.03	17.33	1.00
8	TRACY	1.00	273.75	19.40	23.27	1.00
5	BOSSIER	1.00	153.00	17.95	19.77	1.00
9	FORREST	1.00	213.25	16.93	15.04	1.00
4	IMPROVED PELICAN	1.00	252.50	39.95	15.80	1.00
2	HAMPTON 266A	1.00	129.75	21.53	24.16	1.00
12	BONUS	1.00	157.25	40.15	19.36	1.00
10	HILL	1.00	226.00	25.83	17.56	1.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	220.50	25.83	18.95	1.00
COEFFICIENT OF VARIATION		0.00	14.61	2.92	0.69	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	13.25%	22.58%	7.24%	0.00%
		0.00	41.71	8.32	1.96	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		+ + - PROB=.01)		
YIELD KG/HA		0.00	0.42++	-0.12	-0.02	0.00
DAYS TO FLOWER		0.00	0.04	0.15	-0.17	0.00
DAYS TO MATURITY		0.00	-0.32+	-0.12	0.32+	0.00
NODULE NUMBER 1		0.00	0.20	0.08	0.03	0.00
NODULE NUMBER 2		0.00	0.20	0.02	-0.21	0.00
NODULE WEIGHT 1		0.00	0.29+	0.02	-0.00	0.00
NODULE WEIGHT 2		0.00	-0.06	-0.12	0.27+	0.00
PLANT HEIGHT		0.00	0.35++	0.53++	-0.26+	0.00
LODGING		0.00	0.24	0.39++	-0.28+	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	0.14	-0.24	0.00
PLANTS PER PLANT		0.00	0.14	1.00	-0.25	0.00
100 SEED WEIGHT		0.00	-0.24	-0.25	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 136

EXPERIMENT 177

YEAR 1976

REGION - ASIA
 SITE - KILINCHCHI
 LATITUDE - 9 DEG. 2 MIN. N
 COOPERATOR - N. KANAGANAYAGAM
 DATE PLANTED - JANUARY 12, 1977
 SOIL TYPE - SAND
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 97 MM

COUNTRY - SRI LANKA
 ELEVATION - 9 M
 LONGITUDE - 80 DEG. 5 MIN. E
 DATE HARVESTED - APRIL, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	JUPITER	3796.33	39.25	114.00	211.00	468.00	0.00	0.00	85.50	1.00
12	DAVIS	3488.46	31.50	106.50	209.50	426.75	0.00	0.00	42.00	1.00
9	WILLIAMS	3415.42	27.50	100.25	268.75	418.50	0.00	0.00	59.00	1.00
10	CLARK 63	3157.35	27.00	97.50	179.50	228.00	0.00	0.00	55.50	1.00
4	RANSON	3121.88	28.00	111.50	209.25	426.75	0.00	0.00	32.25	1.00
14	FORREST	3119.79	30.00	103.50	218.75	381.00	0.00	0.00	38.50	1.00
1	CALLAND	3062.95	26.75	101.00	163.25	239.00	0.00	0.00	54.00	1.00
3	BRAGG	3061.08	27.50	104.00	131.75	281.75	0.00	0.00	37.00	1.00
13	IMPROVED PELICAN	3027.27	34.75	111.25	170.00	382.75	0.00	0.00	93.50	1.00
15	COLUMBUS	2920.85	27.00	100.00	183.25	253.25	0.00	0.00	51.00	1.00
2	WOODWORTH	2743.47	26.50	97.00	178.00	183.75	0.00	0.00	45.50	1.00
11	COBB	2726.48	28.00	104.00	167.50	221.25	0.00	0.00	32.75	1.00
16	ESSEX	2660.69	27.25	108.00	243.75	447.25	0.00	0.00	28.50	1.00
8	BOSSIER	2617.87	27.00	99.75	291.50	402.75	0.00	0.00	48.50	1.00
6	PICKETT 71	2577.91	26.75	101.25	165.50	314.00	0.00	0.00	28.75	1.00
5	HILL	2270.45	32.50	98.75	198.75	275.50	0.00	0.00	34.25	1.00
GRAND MEAN		2985.52	29.20	103.64	199.38	334.39	0.00	0.00	47.91	1.00
STANDARD ERROR OF A VARIETY MEAN		201.89	0.39	0.73	26.02	53.98	0.00	0.00	1.59	0.00
COEFFICIENT OF VARIATION		13.52%	2.67%	1.42%	26.10%	32.29%	0.00%	0.00%	6.62%	0.00%
5% LSE VARIETY MEANS (*****=NS)		575.07	1.11	2.09	74.11	153.77	0.00	0.00	4.52	0.00
C O R R E L A T I O N S										
					(+ - PROB=-.05			** - PROB=-.01)		
YIELD	KG/HA	1.00	0.32+	0.32+	0.03	0.26+	0.00	0.00	0.40++	0.00
DAYS TO FLOWER	0.32+	0.32+	1.00	0.61++	0.04	0.36++	0.00	0.00	0.62++	0.00
DAYS TO MATURITY	0.32+	0.32+	0.61++	1.00	0.01	0.46++	0.00	0.00	0.33++	0.00
NODULE NUMBER 1	0.03	0.03	0.04	0.01	1.00	0.64++	0.00	0.00	0.01	0.00
NODULE NUMBER 2	0.26+	0.26+	0.36++	0.46++	0.64++	1.00	0.00	0.00	0.14	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.40++	0.40++	0.62++	0.33++	0.01	0.14	0.00	0.00	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.26+	0.26+	-0.14	0.07	0.26+	0.32+	0.00	0.00	-0.04	0.00
PLANTS PER PLANT	0.28+	0.28+	0.59++	0.48++	-0.07	0.20	0.00	0.00	0.75++	0.00
100 SEED WEIGHT	0.32++	0.32++	-0.19	0.03	0.07	0.03	0.00	0.00	-0.20	0.00
QUALITY OF SEED	-0.19	-0.19	-0.10	0.09	0.00	-0.03	0.00	0.00	-0.40++	0.00

TABLE 136 EXPERIMENT 177 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
7	JUPITER	1.00	192.75	34.15	23.34	1.00
12	DAVIS	1.00	194.75	28.45	22.23	1.50
9	WILLIAMS	1.00	198.75	25.35	22.40	1.00
10	CLARK 63	1.00	193.00	26.73	21.73	1.00
4	RANSON	1.00	199.00	22.70	23.46	2.00
14	FORREST	1.00	198.75	26.25	18.99	2.00
1	CALLAND	1.00	199.50	24.63	21.64	1.50
3	BAGG	1.00	196.75	23.73	22.62	2.00
13	IMPROVED PELICAN	1.00	191.25	50.10	17.30	1.00
15	COLUMBUS	1.00	196.00	29.90	21.96	1.00
2	WOODWORTH	1.00	191.00	22.58	21.06	1.00
11	COBB	1.00	185.00	25.68	22.09	4.00
16	ESSEX	1.00	198.25	24.48	21.48	2.00
8	BOSSIER	1.00	193.50	21.93	22.27	2.00
6	PICKETT 71	1.00	191.25	22.10	21.30	1.00
5	HILL	1.00	190.75	24.00	20.08	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	194.39	27.05	21.50	1.63
COEFFICIENT OF VARIATION		0.00	2.29	1.68	0.56	0.37
5% LSD VARIETY MEANS (*****=NS)		0.00	2.35	12.44	5.24	46.10
		0.00	6.52	4.79	1.60	1.07
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD KG/HA		0.00	0.26+	0.28+	0.32++	-0.19
DAYS TO FLOWER		0.00	-0.14	0.59++	-0.19	-0.10
DAYS TO MATURITY		0.00	0.07	0.48++	0.03	0.09
NODULE NUMBER 1		0.00	0.26+	-0.07	0.07	0.00
NODULE NUMBER 2		0.00	0.32+	0.20	0.03	-0.03
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.04	0.75++	-0.20	-0.40++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.15	0.06	-0.19
PODS PER PLANT		0.00	-0.15	1.00	-0.38++	-0.19
100 SEED WEIGHT		0.00	0.06	-0.38++	1.00	0.05
QUALITY OF SEED		0.00	-0.19	-0.19	0.05	1.00

TABLE 137 EXPERIMENT 173 YEAR 1976

REGION - ASIA
 SITE - MAHA ILLUPPALLAMA
 LATITUDE - 8 DEG. 5 MIN. N
 COOPERATOR - P. WEERASINGHE
 DATE PLANTED - DECEMBER 17, 1976
 SOIL TYPE - SANDY CLAY LOAM, PH 6.4
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 312 MM
 NUMBER OF IRRIGATIONS - 5

COUNTRY - SRI LANKA
 ELEVATION - 138 M
 LONGITUDE - 80 DEG. 28 MIN. E
 DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
12	DAVIS	2465.62	28.25	91.00	101.50	182.25	0.11	1.59	26.08	1.00
5	HILL	2128.12	28.50	79.00	113.00	115.50	0.48	1.18	27.90	1.00
9	WILLIAMS	2103.12	22.25	79.00	94.25	126.75	0.17	1.09	29.63	1.00
11	COBB	2056.25	24.25	88.00	110.00	135.00	0.20	1.14	27.13	1.00
13	IMPROVED PELICAN	2043.75	29.50	85.00	85.25	199.75	0.11	1.78	45.63	1.00
14	FORREST	2034.37	28.00	79.00	107.75	134.50	0.33	1.17	34.45	1.00
16	ESSEX	2031.25	25.00	91.00	80.00	130.25	0.11	1.18	27.25	1.00
1	CALLAND	1971.87	23.00	79.00	93.75	143.75	0.14	1.17	32.78	1.00
3	BRAGG	1921.87	25.25	79.00	113.50	159.75	0.37	1.29	33.23	1.00
4	RANSOM	1828.12	24.75	88.00	130.50	170.75	0.33	1.50	27.43	1.00
10	CLARK 63	1628.12	22.50	79.00	114.00	132.25	0.38	0.79	33.25	1.00
15	COLUMBUS	1409.37	23.00	83.00	119.00	116.50	0.12	1.09	25.95	1.00
2	WOODWORTH	1403.12	23.75	79.00	105.25	152.00	0.21	1.31	33.50	1.00
8	BOSSIER	1359.37	23.00	90.00	87.00	192.75	0.04	1.57	21.18	1.00
7	JUPITER	1196.87	24.25	95.00	128.75	204.00	0.39	1.83	62.05	1.00
6	PICKETT 71	950.00	26.50	63.00	93.50	155.00	0.19	1.42	24.25	1.00
GRAND MEAN										
1783.20										
STANDARD ERROR OF A VARIETY MEAN										
195.53										
COEFFICIENT OF VARIATION										
21.93%										
5% LSD VARIETY MEANS (*****=NS)										
556.96 *****										
CORRELATIONS										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.05	0.20	-0.17	-0.19	-0.05	-0.12	-0.10	0.00
DAYS TO FLOWER	0.05	0.00	1.00	-0.03	0.08	0.07	0.17	0.13	0.05	0.00
DAYS TO MATURITY	0.20	0.00	-0.03	1.00	0.02	-0.07	-0.02	-0.02	0.17	0.00
NODULE NUMBER 1	-0.17	0.00	0.08	0.02	1.00	-0.06	0.18	-0.04	0.14	0.00
NODULE NUMBER 2	-0.19	0.00	0.07	-0.07	-0.06	1.00	-0.09	0.84++	0.32++	0.00
NODULE WEIGHT 1	-0.05	0.00	0.17	-0.02	0.18	-0.09	1.00	-0.23	0.23	0.00
NODULE WEIGHT 2	-0.12	0.00	0.13	-0.02	-0.04	0.84++	-0.23	1.00	0.32+	0.00
PLANT	-0.10	0.00	0.05	0.17	0.14	0.32++	0.23	0.32+	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.59++	0.00	0.04	0.26+	0.14	-0.03	0.20	-0.06	0.13	0.00
PODS PER PLANT	-0.01	0.00	0.12	-0.13	-0.09	0.19	-0.12	0.24	-0.03	0.00
100 SEED WEIGHT	0.05	0.00	-0.17	0.13	0.00	0.13	-0.12	0.09	-0.03	0.00
QUALITY OF SEED	0.01	0.00	-0.05	0.06	-0.03	-0.08	0.31+	-0.33++	-0.12	0.00

TABLE 137 EXPERIMENT 173 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
12	DAVIS	1.00	300.50	15.18	18.91	1.00	38.2	22.2
5	HILL	1.00	274.75	18.58	13.62	1.00	35.3	23.3
9	WILLIAMS	1.00	251.25	12.20	17.33	1.00	36.0	25.2
11	COBB	1.00	279.00	17.85	16.38	1.75	35.9	23.1
13	IMPROVED PELICAN	1.00	229.25	21.63	13.08	1.00	37.5	23.8
14	FORREST	1.00	227.75	15.38	12.36	1.25	37.2	22.5
16	ESSEX	1.00	256.75	11.30	15.45	1.00	38.5	22.6
1	CALLAND	1.00	248.00	11.70	19.12	1.00	35.5	23.6
3	BRAGG	1.00	306.00	10.03	16.70	1.00	36.7	24.3
4	RANSOM	1.00	310.25	12.78	16.37	1.00	35.4	25.4
10	CLARK 63	1.00	240.25	12.65	15.22	1.25	35.6	24.2
15	COLUMBUS	1.00	175.75	15.75	16.55	1.00	37.1	23.8
2	WOODWORTH	1.00	219.25	14.95	14.92	1.00	35.1	25.0
8	BOSSIER	1.00	155.75	19.95	15.42	1.25	37.5	23.1
7	JUPITER	1.00	264.75	14.63	17.38	1.00	38.2	23.8
6	PICKETT 71	1.00	143.25	18.63	15.93	1.00	36.0	25.0
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	242.66	15.20	15.92	1.09		
COEFFICIENT OF VARIATION		0.00	26.30	1.91	0.77	0.13		
5% LSD VARIETY MEANS (*****=NS)		0.00	21.68%	25.16%	9.66%	23.36%		
		0.00	74.92	5.44	2.19	0.36		
C O R R E L A T I O N S								
		(+ - PROB=.05			++ - PROB=.01)			
YIELD		0.00	0.59++	-0.01	0.05	0.01		
KG/HA		0.00	0.04	0.12	-0.17	-0.05		
DAYS TO FLOWER		0.00	0.26+	-0.13	0.13	0.06		
DAYS TO MATURITY		0.00	0.14	-0.09	0.00	-0.03		
NODULE NUMBER 1		0.00	-0.03	0.19	0.13	-0.08		
NODULE NUMBER 2		0.00	0.20	-0.12	-0.12	0.31+		
NODULE HEIGHT 1		0.00	-0.06	0.24	0.09	-0.33++		
NODULE HEIGHT 2		0.00	0.13	-0.03	-0.03	-0.12		
PLANT		0.00	0.00	0.00	0.00	0.00		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS		0.00	1.00	-0.34++	0.02	0.00		
HARVEST		0.00	-0.34++	1.00	-0.24	0.17		
PODS PER PLANT		0.00	0.02	-0.24	1.00	-0.12		
100 SEED WEIGHT		0.00	0.00	0.17	-0.12	1.00		
QUALITY OF SEED		0.00	0.00	0.17	-0.12	1.00		

TABLE 138

EXPERIMENT 132

YEAR 1976

REGION - ASIA
 SITE - MAHA ILLUPPALLAMA
 LATITUDE - 8 DEG. 5 MIN. N
 COOPERATOR - P.W.S.M. WEERASINGHE
 DATE PLANTED - MAY 24, 1976
 SOIL TYPE - SANDY CLAY LOAM, PH 6.4
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 4 MM
 NUMBER OF IRRIGATIONS - 13
 LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
 ELEVATION - 138 M
 LONGITUDE - 80 DEG. 28 MIN. E
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	IMPROVED PELICAN	1800.36	32.75	99.00	66.75	136.50	0.33	1.24	60.08	1.00
3	HARDEE	1712.84	29.50	98.25	72.50	187.25	0.50	1.54	29.15	1.00
15	SJ-2	1571.15	32.00	91.75	84.75	169.25	0.70	1.34	52.38	1.00
12	BONUS	1544.06	35.00	92.75	67.25	182.75	0.53	1.76	36.13	1.00
1	JUPITER	1473.21	38.50	110.25	93.00	128.25	0.62	1.12	58.35	1.00
7	DAVIS	1458.62	28.00	95.25	73.00	173.25	0.48	1.52	28.60	1.00
6	BAGG	1423.20	33.00	88.50	98.25	169.50	0.69	1.50	37.45	1.00
5	BOSSIER	1406.53	28.00	93.25	71.25	124.75	0.58	1.06	26.15	1.00
14	PB-1	1366.94	32.00	88.50	64.00	177.25	0.45	1.67	33.88	1.00
13	WILLIAMS	1289.84	28.00	81.00	36.25	146.75	0.24	1.28	36.33	1.00
9	FORREST	1214.83	29.00	84.00	51.75	117.50	0.29	1.00	28.00	1.00
11	CLARK 63	1179.40	30.00	84.25	46.50	152.00	0.40	1.35	46.68	1.00
8	TRACY	1114.81	28.00	80.00	81.50	146.50	0.58	1.39	26.73	1.00
10	HILL	1068.96	28.00	82.00	50.00	178.25	0.36	1.52	27.08	1.00
2	HAMPTON 266A	881.43	29.75	83.75	76.75	156.75	0.53	1.40	23.30	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% ISL VARIETY MEANS (*****=NS)										
(+ - PROB=.05 ++ - PROB=.01) (* - PROB=.05 ++ - PROB=.01)										
C O R R E L A T I O N S										
YIELD	KG/HA	1.00								
DAYS TO FLOWER	0.26+	0.52++								
DAYS TO MATURITY	0.26+	0.58++	0.20							
NODULE NUMBER 1	0.52++	1.00	0.32+	0.01						
NODULE NUMBER 2	0.32+	0.20	1.00	0.02	0.02					
NODULE WEIGHT 1	-0.02	0.01	-0.07	0.13	0.89++					
NODULE WEIGHT 2	0.09	0.29+	0.02	0.02	-0.03	1.00				
PLANT HEIGHT	-0.05	0.07	-0.11	-0.02	-0.03	-0.07	0.09			
LODGING	0.47++	0.64++	0.50++	-0.14	0.90++	-0.07	1.00			
SHATTER	0.00	0.00	0.00	0.08	0.01	-0.11	0.01			
HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
PLANT	0.17	0.16	0.03	-0.04	-0.16	-0.18	0.00			
PODS PER 100 SEED	0.06	-0.15	0.00	-0.09	0.28+	-0.16	0.00			
WEIGHT	0.06	0.02	0.33+	0.09	-0.05	0.06	-0.09			
QUALITY OF SEED	0.07	-0.36++	0.17	0.05	-0.08	0.09	-0.10			

TABLE 138 EXPERIMENT 132 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	IMPROVED PELICAN	1.00	199.00	27.00	14.20	1.00
3	HARDEE	1.00	116.25	28.25	17.40	1.00
15	SJ-2	1.00	179.25	28.75	12.85	1.00
12	BONUS	1.00	158.75	24.00	13.48	1.00
1	JUPITER	1.00	141.75	15.25	18.25	1.00
7	DAVIS	1.00	155.50	24.50	16.38	2.00
6	BRAGG	1.00	144.50	22.50	14.30	1.00
5	BOSSIER	1.00	146.50	25.50	14.88	2.00
14	PB-1	1.00	148.50	39.75	10.83	1.00
13	WILLIAMS	1.00	124.75	25.00	16.40	1.00
9	FORREST	1.00	139.00	23.75	11.83	1.00
11	CLARK 63	1.00	244.75	20.25	15.93	1.00
8	TRACY	1.00	142.50	17.00	15.60	1.00
10	HILL	1.00	108.50	31.25	14.55	1.00
2	HAMPTON 266A	1.00	89.75	32.00	14.55	1.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	149.28	25.65	14.76	1.13
COEFFICIENT OF VARIATION		0.00	12.78	3.54	0.11	0.00
5% ISE VARIETY MEANS (*****=NS)		0.00	17.12%	27.58%	1.43%	0.00%
		0.00	36.47	10.09	0.30	0.00
C O R R E L A T I O N S						
			(+ - PROB=.05	+ - PROB=.01)		
YIELD	KG/HA	0.00	0.17	0.17	0.06	0.07
DAYS TO FLOWER		0.00	0.16	-0.15	0.02	-0.36++
DAYS TO MATURITY		0.00	0.03	0.00	0.33+	0.17
NODULE NUMBER 1		0.00	-0.04	-0.09	0.09	0.05
NODULE NUMBER 2		0.00	-0.16	0.28+	-0.05	-0.08
NODULE WEIGHT 1		0.00	-0.00	-0.16	0.06	0.09
NODULE WEIGHT 2		0.00	-0.18	0.20	-0.09	-0.10
PLANT	HEIGHT	0.00	0.46++	-0.14	0.12	-0.29+
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.31+	-0.08	0.02
PODS PER	PLANT	0.00	-0.31+	1.00	-0.38++	-0.03
100 SEED	WEIGHT	0.00	-0.08	-0.38++	1.00	0.17
QUALITY	OF SEED	0.00	0.02	-0.03	0.17	1.00

TABLE 139

EXPERIMENT 135

YEAR 1976

REGION - ASIA
 SITE - OKAMPITIYA
 LATITUDE - 6 DEG. 45 MIN. N
 COOPERATOR - L.G. HERAT
 DATE PLANTED - MAY 11, 1976
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 22.4, P 29.3, K 37.3
 AMOUNT OF MOISTURE - 91 MM
 NUMBER OF IRRIGATIONS - 12
 LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
 ELEVATION - 184 M
 LONGITUDE - 81 DEG. 15 MIN. E
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
5	BOSSIER	3271.49	25.00	104.00	102.25	206.75	1.76	4.76	66.75	1.00
3	HARDEE	3171.47	29.00	110.00	122.00	247.50	1.96	5.31	64.00	1.00
14	PB-1	3125.62	25.00	89.00	95.00	166.25	1.78	4.13	68.25	2.00
7	DAVIS	2929.75	25.00	102.00	70.50	197.50	1.80	4.87	50.50	1.00
6	BRAGG	2429.65	29.00	96.00	62.25	116.25	1.22	3.42	48.00	1.00
13	WILLIAMS	2229.61	22.00	80.00	97.50	92.50	1.51	2.89	37.50	1.00
2	HAMPTON 266A	2175.43	22.00	94.25	95.25	128.00	1.70	3.46	37.50	1.00
9	FORREST	2162.93	25.00	96.00	72.50	124.75	1.57	3.59	51.50	1.00
10	HILL	2146.26	29.00	80.00	77.00	66.75	1.36	2.08	54.25	1.50
12	BONUS	2133.76	22.00	82.25	68.00	87.50	1.38	2.69	47.00	1.00
8	TRACY	2100.42	22.00	82.25	76.50	85.25	1.36	2.61	41.25	1.00
4	IMPROVED PELICAN	2025.40	25.00	111.75	36.25	71.25	0.70	1.51	80.00	1.75
1	JUPITER	1912.88	46.00	117.00	71.50	225.00	1.42	4.44	101.25	1.25
11	UNKNOWN	1883.71	25.00	80.00	64.00	97.00	1.37	2.53	65.00	2.00
15	SJ-2	1858.70	25.00	117.00	48.75	90.00	1.17	2.35	83.75	2.25
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		2370.47	26.40	96.10	77.28	133.48	1.47	3.38	59.77	1.32
COEFFICIENT OF VARIATION		212.79	0.00	1.17	13.92	20.36	0.23	0.45	2.39	0.14
5% LSD VARIETY MEANS (*****=NS)		607.32	0.00	2.43	36.02	30.50	31.89	26.68	8.00	20.96
				3.34	39.73	58.10	*****	1.29	6.82	0.39
CORRELATIONS										
		(+ - PROB=.05 +- - PROB=.01)								
YIELD	KG/HA	1.00	-0.09	0.06	0.43++	0.49++	0.48++	0.48++	-0.02	-0.11
DAYS TO FLOWER		-0.09	1.00	0.49++	-0.03	0.42++	-0.02	0.27+	0.67++	0.01
DAYS TO MATURITY		0.06	0.49++	1.00	-0.12	0.43++	-0.07	0.29+	0.69++	0.10
NODULE NUMBER 1		0.43++	-0.03	-0.12	1.00	0.40++	0.63++	0.37++	-0.17	-0.22
NODULE NUMBER 2		0.48++	0.42++	0.43++	0.40++	1.00	0.29+	0.92++	-0.21	-0.21
NODULE WEIGHT 1		0.48++	-0.02	-0.07	0.63++	0.29+	1.00	0.29+	-0.11	-0.20
NODULE WEIGHT 2		0.48++	0.27+	0.29+	0.37++	0.92++	0.29+	1.00	0.06	-0.30+
PLANT HEIGHT		-0.02	0.67++	0.29+	-0.17	0.28+	-0.11	0.06	1.00	0.52++
LODGING		-0.11	0.01	0.10	-0.22	-0.21	-0.20	-0.30+	0.52++	1.00
SHATTER		-0.26+	-0.12	-0.37++	-0.07	-0.32+	-0.08	-0.35++	0.11	0.59++
PLANTS HARVEST		0.39++	0.07	0.73++	0.17	0.15	0.02	0.07	0.32+	0.26+
PODS PER PLANT		0.23	0.42++	0.73++	0.01	0.43++	-0.03	0.28+	0.61++	0.23
100 SEED WEIGHT		0.09	0.06	0.06	0.12	0.22	0.17	0.27+	-0.62++	-0.23
QUALITY OF SEED		-0.23	0.37++	0.25	-0.17	0.01	-0.13	-0.11	0.54++	0.40++

TABLE 139 EXPERIMENT 135 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
5	BOSSIER	1.00	308.75	25.55	20.00	2.00
3	HARDEE	1.00	320.00	20.88	19.15	3.00
14	PB-1	1.75	332.50	19.95	12.98	3.00
7	DAVIS	1.00	310.25	18.50	22.05	3.00
6	BRAGG	1.00	292.00	18.88	22.15	2.00
13	WILLIAMS	1.50	303.00	10.48	19.10	3.00
2	HAMPTON 266A	1.00	244.75	18.98	22.98	2.00
9	FORREST	1.25	310.50	15.20	16.75	2.00
10	HILL	2.00	305.50	11.93	16.33	3.00
12	BONUS	1.25	298.75	11.55	20.03	4.00
8	TRACY	1.00	304.25	11.30	19.03	2.00
4	IMPROVED PELICAN	1.00	314.25	22.68	16.50	3.00
1	JUPITER	1.00	302.25	26.00	19.93	4.00
11	UNKNOWN	3.00	305.00	13.43	16.53	3.00
15	SJ-2	2.00	313.00	22.55	15.20	4.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.38	304.32	17.85	18.58	2.87
COEFFICIENT OF VARIATION		0.13	10.58	1.98	0.37	0.00
5% ISC VARIETY MEANS (*****=NS)		0.38	30.19	5.66	1.04	0.00
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)						
YIELD	KG/HA	-0.26+	0.39++	0.23	0.09	-0.23
DAYS TO FLOWER		-0.12	0.07	0.42++	0.06	0.37++
DAYS TO MATURITY		-0.37++	0.07	0.73++	0.06	0.25
NODULE NUMBER 1		-0.07	0.17	0.01	0.12	-0.17
NODULE NUMBER 2		-0.32+	0.15	0.43++	0.22	0.01
NODULE WEIGHT 1		-0.08	0.02	-0.03	0.17	-0.13
NODULE WEIGHT 2		-0.35++	0.07	0.28+	0.27+	-0.11
PLANT	HEIGHT	0.11	0.32+	0.61++	-0.37++	0.54++
LODGING		0.59++	0.26+	0.23	-0.62++	0.40++
SHATTER		1.00	0.11	-0.23	-0.52++	0.27+
HARVEST		0.11	1.00	-0.03	-0.43++	0.21
PODS PER PLANT		-0.23	-0.03	1.00	0.07	0.09
100 SEED WEIGHT		-0.52++	-0.43++	0.07	1.00	-0.28+
QUALITY OF SEED		0.27+	0.21	0.09	-0.28+	1.00

TABLE 140 EXPERIMENT 134 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	PB-1	1.00	332.00	24.30	12.24	1.00
9	FORREST	1.00	317.25	19.05	14.46	4.00
10	HILL	1.00	314.00	44.23	13.39	1.50
15	SJ-2	1.50	298.00	27.37	13.61	1.00
11	CLARK 63	1.00	320.00	18.68	17.69	1.00
5	BRAGG	1.25	300.75	22.15	17.42	1.00
1	JUPITER	1.00	296.50	27.92	18.28	2.75
4	IMPROVED PELICAN	1.50	302.75	32.28	14.57	2.25
3	HARDEE	1.00	292.75	33.67	14.47	2.25
13	WILLIAMS	1.25	299.25	18.85	16.32	2.00
7	DAVIS	1.25	296.25	24.37	19.31	2.00
6	BOSSIER	1.00	312.25	19.85	14.82	2.00
8	TRACY	1.00	296.75	18.33	18.14	2.75
12	BONUS	1.00	289.25	20.38	16.25	2.25
2	HAMPTON 266A	1.50	278.75	23.50	23.19	3.00
	GRAND MEAN	1.15	303.10	24.99	16.28	2.05
	STANDARD ERROR OF A VARIETY MEAN	0.17	10.28	2.94	0.51	0.23
	COEFFICIENT OF VARIATION	30.20%	6.78%	23.54%	6.26%	22.20%
	5% LSD VARIETY MEANS (*****=NS)	*****	*****	8.40	1.45	0.65
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
	YIELD KG/HA	-0.15	0.51++	0.05	-0.35++	-0.14
	DAYS TO FLOWER	0.09	0.05	0.28+	-0.11	-0.19
	DAYS TO MATURITY	0.43++	-0.28+	0.22	0.29+	-0.08
	NODULE NUMBER 1	-0.05	-0.19	0.04	0.04	-0.20
	NODULE NUMBER 2	-0.03	-0.30+	0.16	0.07	-0.12
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.07	0.23	0.41++	-0.37++	-0.33+
	LODGING	0.17	-0.26+	0.05	-0.14	-0.18
	SHATTER	1.00	-0.22	0.02	0.10	-0.07
	PLANTS HARVEST	-0.22	1.00	0.02	-0.32+	-0.06
	PODS PER PLANT	0.02	0.02	1.00	-0.24	-0.14
	100 SEED WEIGHT	0.10	-0.32+	-0.24	1.00	0.27+
	QUALITY OF SEED	-0.07	-0.06	-0.14	0.27+	1.00

TABLE 141 EXPERIMENT 666 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	HARDEE	1.00	228.25	41.25	17.56	2.75
2	HAMPTON 266A	1.00	264.75	37.00	17.93	2.75
10	HILL	1.00	249.50	28.25	17.59	2.50
6	BOSSIER	1.00	248.75	42.00	18.46	2.50
9	FORREST	1.00	293.00	44.00	16.18	2.50
13	WILLIAMS	1.00	292.50	30.00	19.90	2.00
11	CLARK 63	1.50	289.00	48.50	18.48	2.25
7	DAVIS	1.00	290.25	29.75	20.04	2.00
8	TRACY	1.00	299.75	30.75	21.04	2.25
5	BRAGG	1.00	233.75	27.00	15.65	3.00
14	PB-1	1.00	248.00	60.75	14.30	2.00
12	BONUS	1.00	297.00	26.50	19.61	3.00
4	IMPROVED PELICAN	1.00	258.25	43.25	15.57	2.25
15	SJ-2	1.00	253.50	45.50	13.88	2.25
1	JUPITER	1.00	237.50	48.50	18.09	3.25
	GRAND MEAN	1.03	265.58	38.87	17.62	2.48
	STANDARD ERROR OF A VARIETY MEAN	0.07	8.16	5.44	0.24	0.19
	COEFFICIENT OF VARIATION	14.43%	6.14%	27.97%	2.72%	15.47%
	5% LSC VARIETY MEANS (*****=NS)	0.21	23.28	15.51	0.68	0.55
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)						
	YIELD KG/HA	0.02	0.16	-0.14	0.28+	-0.06
	DAYS TO FLOWER	-0.17	-0.73++	0.30+	-0.50++	0.32+
	DAYS TO MATURITY	-0.24	-0.57++	0.06	-0.15	0.40++
	NODULE NUMBER 1	0.02	-0.13	0.15	0.05	0.08
	NODULE NUMBER 2	0.33+	-0.00	0.29+	-0.12	-0.17
	NODULE WEIGHT 1	0.08	-0.06	0.16	0.20	0.18
	NODULE WEIGHT 2	0.22	-0.07	0.25	-0.06	-0.17
	PLANT HEIGHT	-0.01	-0.20	0.08	-0.42++	0.03
	LOGGING	-0.17	-0.51++	0.28+	-0.62++	0.05
	SHATTER	1.00	0.16	0.05	0.08	-0.17
	PLANTS HARVEST	0.16	1.00	-0.16	0.49++	-0.31+
	PODS PER PLANT	0.05	-0.16	1.00	-0.38++	-0.17
	100 SEED WEIGHT	0.08	0.49++	-0.38++	1.00	-0.01
	QUALITY OF SEED	-0.17	-0.31+	-0.17	-0.01	1.00

TABLE 142 EXPERIMENT 33 YEAR 1976

REGION - ASIA
 SITE - KHON KAEN
 LATITUDE - 16 DEG. 36 MIN. N
 COOPERATOR - PAISAN LAOSUNAN
 DATE PLANTED - JUNE 26, 1976
 SOIL TYPE - SAND, PH 6.5
 FERTILIZER USED (KG/HA) - N 18.75, P 32.25, K 62.25
 AMOUNT OF MOISTURE - 693 MM
 LOCAL VARIETY - S.J.2

DATE HARVESTED - NOVEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	DAVIS	2651.78	32.50	118.00	255.50	694.25	0.88	6.71	43.75	1.00
12	COBB	2560.51	31.00	133.00	183.75	474.50	0.67	5.05	45.00	1.00
6	PICKETT 71	2417.57	30.50	124.75	98.75	295.75	0.43	4.07	30.75	1.00
8	JUPITER	2246.70	49.25	127.00	240.75	499.25	1.59	5.24	73.75	1.00
3	BRAGG	2227.53	29.50	121.00	221.25	847.50	0.83	6.75	44.75	1.00
14	IMPROVED PELICAN	1802.86	41.50	123.00	232.00	443.50	1.86	3.80	82.75	1.00
9	BOSSLER	1650.75	28.50	129.00	134.00	451.00	0.99	4.99	34.25	1.00
15	FORREST	1624.07	30.00	132.50	178.25	561.75	0.49	4.15	41.00	1.00
16	S.J.2	1589.48	43.00	122.75	170.50	396.50	1.28	4.27	63.25	1.50
4	CALLAND	1528.22	26.00	123.00	31.00	509.00	0.11	4.28	65.25	1.00
4	RANSON	1457.79	28.75	128.50	139.75	710.00	0.48	4.75	36.75	1.00
5	HILL	983.53	32.50	133.50	94.75	335.25	0.31	3.11	33.25	1.00
10	WILLIAMS	831.42	24.25	126.00	158.25	556.25	0.34	5.48	58.25	1.00
11	CLARK 63	643.88	25.75	127.00	83.00	517.25	0.18	5.29	59.25	1.00
7	CUTLER 71	404.25	24.25	126.00	78.75	513.75	0.18	4.77	63.75	1.00
2	WOODWORTH	133.36	24.00	123.00	81.00	482.25	0.17	4.90	55.00	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1547.11	31.33	126.13	148.83	517.98	0.67	4.85	51.92	1.03
COEFFICIENT OF VARIATION		194.02	0.64	1.20	35.25	71.74	0.27	0.76	3.38	0.07
5% LSL VARIETY MEANS (*****=NS)		25.08%	4.09%	1.90%	47.37%	27.70%	79.70%	31.23%	13.02%	14.00%
		552.65	1.82	3.41	100.42	204.34	0.76	*****	9.63	0.21
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.43++	-0.14	0.45++	0.17	0.38++	0.21	-0.18	0.04
DAYS TO FLOWER		0.43++	1.00	-0.07	0.43++	-0.19	0.61++	-0.13	0.35++	0.29+
DAYS TO MATURITY		-0.14	-0.07	1.00	-0.07	-0.21	-0.08	-0.25+	-0.27+	-0.27+
NODULE NUMBER 1		0.45++	0.43++	-0.07	1.00	0.36++	0.81++	0.35++	0.19	0.01
NODULE NUMBER 2		0.17	-0.19	-0.21	0.36++	1.00	0.11	0.78++	0.08	-0.06
NODULE WEIGHT 1		0.38++	0.61++	-0.08	0.81++	0.11	1.00	0.13	0.40++	0.13
NODULE WEIGHT 2		0.21	-0.13	-0.25+	0.35++	0.78++	0.13	1.00	0.08	-0.12
PLANT HEIGHT		-0.18	0.35++	-0.27+	0.19	0.08	0.40++	0.08	1.00	0.08
LODGING		0.04	0.29+	-0.27+	0.01	-0.06	0.13	-0.12	0.08	1.00
SHATER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.01	-0.48++	0.03	0.04	0.32++	-0.12	0.21	-0.07	-0.35++
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		-0.17	-0.75++	0.22	-0.07	0.21	-0.26+	0.12	-0.35++	-0.37++

TABLE 142 EXPERIMENT 33 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	DAVIS	1.00	130.25	0.00	0.00	5.00
12	COBB	1.00	132.75	0.00	0.00	5.00
6	PICKETT 71	1.00	141.50	0.00	0.00	5.00
8	JUPITER	1.00	110.50	0.00	0.00	2.50
3	BRAGG	1.00	144.75	0.00	0.00	5.00
14	IMPROVED PELICAN	1.00	119.00	0.00	0.00	3.50
9	BOSSIER	1.00	114.50	0.00	0.00	5.00
15	FORREST	1.00	141.75	0.00	0.00	5.00
16	S.J.2	1.00	56.75	0.00	0.00	3.00
1	CALLAND	1.00	115.75	0.00	0.00	5.00
4	RANSOM	1.00	134.50	0.00	0.00	5.00
5	HILL	1.00	95.00	0.00	0.00	5.00
10	WILLIAMS	1.00	137.25	0.00	0.00	5.00
11	CLARK 63	1.00	140.75	0.00	0.00	5.00
7	CUTLER 71	1.00	146.50	0.00	0.00	5.00
2	WOODWORTH	1.00	141.50	0.00	0.00	5.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	125.19	0.00	0.00	4.63
COEFFICIENT OF VARIATION		0.00	11.60	0.00	0.00	0.36
5% ISI VARIETY MEANS (*****=NS)		0.00%	18.53%	0.00%	0.00%	15.62%
		0.00	33.04	0.00	0.00	1.03
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.01	0.00	0.00	-0.17
DAYS TO FLOWER		0.00	-0.48++	0.00	0.00	-0.75++
DAYS TO MATURITY		0.00	0.03	0.00	0.00	0.22
NODULE NUMBER 1		0.00	0.04	0.00	0.00	-0.07
NODULE NUMBER 2		0.00	0.32++	0.00	0.00	0.21
NODULE WEIGHT 1		0.00	-0.12	0.00	0.00	-0.26+
NODULE WEIGHT 2		0.00	0.21	0.00	0.00	0.12
PLANT HEIGHT		0.00	-0.07	0.00	0.00	-0.35++
LODGING		0.00	-0.35++	0.00	0.00	-0.37++
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.34++
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.34++	0.00	0.00	1.00

TABLE 143
EXPERIMENT 30
YEAR 1976

REGION - ASIA
SITE - SARABURI
LATITUDE - 14 DEG. 47 MIN. N
COOPERATOR - PRAPUTTABAT AGRICULTURAL EXPERIMENT STATION
DATE PLANTED - AUGUST 4, 1976
DATE HARVESTED - OCTOBER, 1976
SOIL TYPE - SAND 40.3%, SILT 26.6%, CLAY 33.1%
AMOUNT OF MOISTURE - 832 MM
NUMBER OF IRRIGATIONS - 1
LOCAL VARIETY - SJ-4

COUNTRY - THAILAND
ELEVATION - 100 M
LONGITUDE - 100 DEG. 57 MIN. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
12	COBB	2084.17	24.00	82.25	0.00	0.00	0.00	0.00	61.08	1.25
4	RANSOM	1937.05	24.25	77.75	0.00	0.00	0.00	0.00	48.38	1.00
10	WILLIAMS	1924.55	22.00	71.50	0.00	0.00	0.00	0.00	69.25	1.25
3	BRAGG	1924.13	24.00	80.00	0.00	0.00	0.00	0.00	52.28	1.75
13	DAVIS	1872.04	25.75	80.00	0.00	0.00	0.00	0.00	45.45	1.25
15	FORREST	1867.87	24.00	78.00	0.00	0.00	0.00	0.00	51.88	1.50
6	PICKETT 71	1855.37	24.00	80.25	0.00	0.00	0.00	0.00	42.93	1.00
9	BOSSIER	1838.28	24.00	78.00	0.00	0.00	0.00	0.00	50.00	1.75
2	WOODWORTH	1791.19	22.00	68.00	0.00	0.00	0.00	0.00	65.15	3.00
11	CLARK 63	1682.84	22.00	72.00	0.00	0.00	0.00	0.00	78.12	3.25
7	CUTLER 71	1668.25	22.00	71.00	0.00	0.00	0.00	0.00	76.75	3.25
1	CALLAND	1644.50	22.00	72.50	0.00	0.00	0.00	0.00	79.50	2.75
16	SJ-4	1585.73	32.00	88.00	0.00	0.00	0.00	0.00	85.10	3.50
14	IMPROVED PELICAN	1517.80	32.00	85.75	0.00	0.00	0.00	0.00	98.90	3.50
5	HILL	1476.96	24.25	70.00	0.00	0.00	0.00	0.00	49.65	2.75
8	JUPITER	1182.74	42.50	96.00	0.00	0.00	0.00	0.00	92.82	3.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		1740.84	25.67	78.19	0.00	0.00	0.00	0.00	65.45	2.23
COEFFICIENT OF VARIATION		92.15	1.87	0.96	0.00	0.00	0.00	0.00	2.84	0.30
5% LSD VARIETY MEANS (*****=NS)		10.59%	14.60%	2.46%	0.00%	0.00%	0.00%	0.00%	8.69%	27.06%
		262.48	5.34	2.74	0.00	0.00	0.00	0.00	8.10	0.86
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD		KG/HA								
DAYS TO FLOWER		1.00	-0.61++	-0.28+	0.00	0.00	0.00	0.00	-0.50++	-0.55++
DAYS TO MATURITY		-0.61++	1.00	0.73++	0.00	0.00	0.00	0.00	0.46++	0.33++
NODULE NUMBER 1		-0.28+	0.73++	1.00	0.00	0.00	0.00	0.00	0.33++	0.07
NODULE NUMBER 2		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
HEIGHT		-0.50++	0.46++	0.33++	0.00	0.00	0.00	0.00	1.00	0.65++
LODGING		-0.55++	0.33++	0.07	0.00	0.00	0.00	0.00	0.65++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.28+	-0.63++	-0.64++	0.00	0.00	0.00	0.00	-0.39++	-0.12
PLANTS		-0.36++	0.64++	0.79++	0.00	0.00	0.00	0.00	0.50++	0.31+
PODS PER PLANT		0.27+	-0.38++	-0.29+	0.00	0.00	0.00	0.00	-0.03	-0.16
100 SEED WEIGHT		0.07	-0.28+	-0.24	0.00	0.00	0.00	0.00	-0.36++	-0.13
QUALITY OF SEED										

TABLE 143 EXPERIMENT 30 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
12	COBB	1.00	226.00	35.03	14.48	3.25
4	RANSOM	1.00	238.00	21.30	15.03	3.00
10	WILLIAMS	1.00	237.75	24.63	16.38	3.00
3	BAGG	1.00	219.25	29.45	14.88	4.25
13	DAVIS	1.00	249.25	32.73	13.93	3.00
15	FORREST	1.00	245.50	31.58	11.63	4.00
6	PICKETT 71	1.00	208.50	25.20	14.53	3.75
9	BOSSIER	1.00	210.75	27.58	14.58	3.50
2	WOODWORTH	1.00	236.50	20.08	13.88	4.00
11	CLARK 63	1.00	234.00	20.53	15.20	3.25
7	CUTLER 71	1.00	226.50	23.35	17.40	3.00
1	CALLAND	1.00	252.75	23.78	15.33	3.75
16	SJ-4	1.00	210.50	54.95	12.70	3.00
14	IMPROVED PELICAN	1.00	199.00	56.55	11.30	3.00
5	HILL	1.00	281.25	27.63	12.45	3.50
8	JUPITER	1.00	153.50	58.35	14.48	3.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	226.81	32.04	14.26	3.39
COEFFICIENT OF VARIATION		0.00	10.95	3.80	0.36	0.17
5% LSD VARIETY MEANS (*****=NS)		0.00%	9.66%	23.73%	5.11%	9.78%
		0.00	31.20	10.83	1.04	0.47
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.28+	-0.36++	0.27+	0.07
DAYS TO FLOWER		0.00	-0.63++	0.64++	-0.38++	-0.28+
DAYS TO MATURITY		0.00	-0.64++	0.79++	-0.29+	-0.24
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT		0.00	-0.39++	0.50++	-0.03	-0.36++
HEIGHT		0.00	-0.12	0.31+	-0.16	-0.13
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	1.00	-0.55++	-0.02	0.12
PLANTS		0.00	-0.55++	1.00	-0.39++	-0.26+
PODS PER		0.00	-0.02	-0.39++	1.00	-0.14
100 SEED		0.00	0.12	-0.26+	-0.14	1.00
QUALITY	OF SEED	0.00				

TABLE 144 EXPERIMENT 32 YEAR 1976

REGION - ASIA COUNTRY - THAILAND
 SITE - SUKOTHAI ELEVATION - 56 M
 LATITUDE - 17 DEG. 12 MIN. N LONGITUDE - 99 DEG. 40 MIN. E
 COOPERATOR - ARWOOTH NA LAMPANG DATE HARVESTED - AUGUST, 1976
 DATE PLANTED - MAY 21, 1976
 SOIL TYPE - CLAY LOAM, PH 6.4
 FERTILIZER USED (KG/HA) - N 18.75, P 56.25, K 37.50
 NUMBER OF IRRIGATIONS - 4
 LOCAL VARIETIES - SJ-1, SJ-4

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
15	FORREST	3326.50	31.00	96.00	0.00	0.00	0.00	0.00	0.00	1.00
16	SJ-4	3202.31	41.25	109.00	0.00	0.00	0.00	0.00	0.00	2.25
9	BOSSIER	2793.48	30.25	109.00	0.00	0.00	0.00	0.00	0.00	1.00
13	DAVIS	2756.38	32.75	106.50	0.00	0.00	0.00	0.00	0.00	1.00
4	RANSOM	2632.61	31.25	109.00	0.00	0.00	0.00	0.00	0.00	1.00
7	SJ-1	2572.60	41.25	109.00	0.00	0.00	0.00	0.00	0.00	4.25
11	CLARK 63	2428.82	27.00	91.50	0.00	0.00	0.00	0.00	0.00	1.00
8	JUPITER	2295.46	50.00	134.00	0.00	0.00	0.00	0.00	0.00	2.50
10	WILLIAMS	2211.69	27.00	90.00	0.00	0.00	0.00	0.00	0.00	1.00
14	IMPROVED PELICAN	2188.35	41.00	123.50	0.00	0.00	0.00	0.00	0.00	3.25
6	PICKETT 71	2078.33	31.25	109.00	0.00	0.00	0.00	0.00	0.00	1.00
1	CALLAND	2070.00	27.25	96.00	0.00	0.00	0.00	0.00	0.00	1.00
2	WOODWORTH	2057.91	26.00	81.00	0.00	0.00	0.00	0.00	0.00	1.00
3	BRAGG	2006.65	32.50	109.25	0.00	0.00	0.00	0.00	0.00	1.00
5	HILL	2001.23	32.25	94.50	0.00	0.00	0.00	0.00	0.00	1.00
12	COBB	1971.64	32.50	117.25	0.00	0.00	0.00	0.00	0.00	1.00
GRAND MEAN		2412.12	33.41	105.28	0.00	0.00	0.00	0.00	0.00	1.52
STANDARD ERROR OF A VARIETY MEAN		437.67	0.53	1.13	0.00	0.00	0.00	0.00	0.00	0.25
COEFFICIENT OF VARIATION		36.29%	3.18%	2.14%	0.00%	0.00%	0.00%	0.00%	0.00%	32.55%
5% LST VARIETY MEANS (*****=NS)		*****	1.52	3.21	0.00	0.00	0.00	0.00	0.00	0.70
C O M P A R I S O N S (+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.09	-0.01	0.00	0.00	0.00	0.00	0.00	0.02
DAYS TO FLOWER		0.09	1.00	0.80++	0.00	0.00	0.00	0.00	0.00	0.71++
DAYS TO MATURITY		0.01	0.80++	1.00	0.00	0.00	0.00	0.00	0.00	0.46++
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LOGGING		0.02	0.71++	0.46++	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER		0.04	0.11	0.19	0.00	0.00	0.00	0.00	0.00	0.13
PLANTS HARVEST		0.09	-0.34++	-0.36++	0.00	0.00	0.00	0.00	0.00	-0.12
PODS PER PLANT		0.48++	0.67++	0.44++	0.00	0.00	0.00	0.00	0.00	0.52++
100 SEED WEIGHT		0.19	-0.36++	-0.17	0.00	0.00	0.00	0.00	0.00	-0.36++
QUALITY OF SEED		0.09	0.12	-0.03	0.00	0.00	0.00	0.00	0.00	0.28++

TABLE 144 EXPERIMENT 32 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	FORREST	1.25	177.00	48.50	14.25	2.00
16	SJ-4	1.00	245.00	64.50	15.25	2.50
9	BOSSIER	1.00	200.75	42.25	14.25	2.25
13	DAVIS	2.25	214.25	31.00	16.50	2.00
4	RANSOM	1.25	193.75	31.00	16.25	2.00
7	SJ-1	1.75	213.00	58.00	13.50	2.75
11	CLARK 63	1.00	191.50	32.50	13.75	2.25
8	JUPITER	1.00	121.25	60.25	12.25	2.00
10	WILLIAMS	1.00	188.25	37.50	15.25	2.00
14	IMPROVED PELICAN	1.50	155.50	74.00	13.25	2.00
6	PICKETT 71	1.75	223.25	28.25	15.25	2.25
1	CALLAND	1.00	208.50	31.00	16.50	2.00
2	WOODWORTH	1.00	204.25	25.75	13.00	2.25
3	BRAGG	1.25	182.75	33.75	15.25	2.25
5	HILL	1.00	193.50	35.75	14.00	2.00
12	COBB	1.25	181.50	32.00	13.75	2.00
GRAND MEAN						
		1.27	193.38	41.63	14.52	2.16
STANDARD ERROR OF A VARIETY MEAN		0.19	11.76	6.23	0.52	0.17
COEFFICIENT OF VARIATION		29.34%	12.16%	29.94%	7.21%	15.36%
5% LSL VARIETY MEANS (*****=NS)		0.53	33.50	17.75	1.49	*****
C O R R E L A T I O N S						
		(+ - PROB=.05			++ - PROB=.01)	
YIELD	KG/HA	0.04	0.09	0.48++	0.19	0.09
DAYS TO FLOWER		0.11	-0.34++	0.67++	-0.36++	0.12
DAYS TO MATURITY		0.19	-0.36++	0.44++	-0.17	-0.03
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	0.00	0.00	0.00	0.00
LODGING		0.13	-0.12	0.52++	-0.36++	0.28+
SHATTER		1.00	0.08	0.02	0.16	-0.06
PLANTS	HARVEST	0.08	1.00	-0.25+	0.39++	0.28+
PODS PER	PLANT	0.02	-0.25+	1.00	-0.25+	0.11
100 SEED	WEIGHT	0.16	0.39++	-0.25+	1.00	-0.03
QUALITY	OF SEED	-0.06	0.28+	0.11	-0.03	1.00

TABLE 145

EXPERIMENT 444

YEAR 1976

REGION - ASIA
 SITE - SUKOTHAI
 COUNTRY - THAILAND
 LATITUDE - 17 DEG. 12 MIN. N
 ELEVATION - 56 M
 COOPERATOR - ARWOOTH NA LAMPANG
 LONGITUDE - 99 DEG. 40 MIN. E
 DATE PLANTED - MAY 28, 1976
 DATE HARVESTED - AUGUST, 1976
 SOIL TYPE - CLAY LOAM, PH 6.4
 FERTILIZER USED (KG/HA) - N 18.75, P 56.25, K 37.50
 AMOUNT OF MOISTURE - 799 MM
 NUMBER OF IRRIGATIONS - 4
 LOCAL VARIETY - SJ-4

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	CALLAND	2860.99	27.50	95.75	0.00	0.00	0.00	0.00	64.25	1.25
7	COLUMBUS	2691.79	27.50	94.50	0.00	0.00	0.00	0.00	63.25	1.75
3	FORREST	2632.19	31.00	100.75	0.00	0.00	0.00	0.00	43.00	1.25
9	MULTIVAR 80	2543.43	26.75	89.75	0.00	0.00	0.00	0.00	62.50	2.00
12	CLARK 63	2245.03	38.25	97.00	0.00	0.00	0.00	0.00	63.00	2.75
2	WILLIAMS	2208.36	27.25	89.75	0.00	0.00	0.00	0.00	56.00	1.50
5	AMSOY 71	2124.59	26.00	91.00	0.00	0.00	0.00	0.00	58.50	1.50
13	TK-5	2094.59	38.00	98.25	0.00	0.00	0.00	0.00	73.00	3.50
8	LINCOLN	2037.91	27.75	95.75	0.00	0.00	0.00	0.00	62.50	2.25
15	SJ-4	1874.54	40.25	112.00	0.00	0.00	0.00	0.00	89.25	2.00
11	TAIYUNG 4	1768.69	39.75	104.50	0.00	0.00	0.00	0.00	58.00	2.75
4	BEESON	1618.24	26.25	93.00	0.00	0.00	0.00	0.00	45.25	1.50
14	ORBA	1517.39	42.75	117.00	0.00	0.00	0.00	0.00	64.50	5.00
6	ALTONA	1466.54	26.75	84.00	0.00	0.00	0.00	0.00	34.50	1.50
10	KAHSIUNG E-32	1169.40	39.75	90.50	0.00	0.00	0.00	0.00	118.00	5.00
	GRAND MEAN	2056.91	32.37	96.90	0.00	0.00	0.00	0.00	63.70	2.37
	STANDARD ERROR OF A VARIETY MEAN	435.30	0.36	1.37	0.00	0.00	0.00	0.00	8.10	0.41
	COEFFICIENT OF VARIATION	42.33%	2.24%	2.83%	0.00%	0.00%	0.00%	0.00%	25.44%	34.48%
	5% LSD VARIETY MEANS (*****=NS)	*****	1.04	3.91	0.00	0.00	0.00	0.00	23.12	1.16

C O R R E L A T I O N S										
			(+ - PROB=-.05			+ - PROB=-.01)				
YIELD	KG/HA	1.00	-0.22	-0.12	0.00	0.00	0.00	0.00	0.37++	0.17
DAYS TO FLOWER	1.00	-0.22	1.00	0.70++	0.00	0.00	0.00	0.00	0.40++	0.62++
DAYS TO MATURITY	0.12	-0.12	0.70++	1.00	0.00	0.00	0.00	0.00	0.09	0.28+
NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	0.37++	0.37++	0.40++	0.09	0.00	0.00	0.00	0.00	1.00	0.64++
LODGING	0.17	0.17	0.62++	0.28+	0.00	0.00	0.00	0.00	0.64++	1.00
SHATTER	-0.09	-0.09	0.20	0.06	0.00	0.00	0.00	0.00	-0.13	0.04
PLANTS HARVEST	0.19	0.19	0.14	0.15	0.00	0.00	0.00	0.00	0.23	0.23+
PODS PER PLANT	0.25	0.25	0.42++	0.00	0.00	0.00	0.00	0.00	0.65++	0.46++
100 SEED WEIGHT	0.44++	0.44++	-0.54++	-0.32+	0.00	0.00	0.00	0.00	-0.18	-0.41++
QUALITY OF SEED	0.01	0.01	-0.05	0.05	0.00	0.00	0.00	0.00	-0.05	-0.13

TABLE 145 EXPERIMENT 444 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1	CALLAND	1.50	112.50	58.00	17.75	2.00
7	COLUMBUS	1.00	197.75	34.00	17.00	2.00
3	FORREST	1.50	147.25	51.75	15.00	1.75
9	MULTIVAR 80	1.00	229.00	27.50	16.25	2.00
12	CLARK 63	1.50	205.50	67.25	13.00	1.75
2	WILLIAMS	1.00	98.00	43.50	17.50	2.00
5	AMSOY 71	1.25	164.25	36.75	14.50	1.25
13	TK-5	3.00	223.25	50.25	16.50	1.25
8	LINCOLN	1.00	214.75	25.25	14.50	1.50
15	SJ-4	1.00	195.25	55.75	14.00	1.50
11	TAINUNG 4	1.75	148.00	44.50	16.50	1.75
4	BEESON	1.50	218.25	19.75	17.25	1.75
14	OREA	1.00	200.50	38.00	10.50	2.00
6	ALTONA	1.25	136.25	30.00	13.75	1.75
10	KAOHSIUNG E-32	1.00	159.50	96.25	10.75	1.75
GRAND MEAN						
		1.35	176.67	45.23	14.98	1.73
STANDARD ERROR OF A VARIETY MEAN						
		0.19	20.65	7.36	0.59	0.22
COEFFICIENT OF VARIATION						
		27.53%	23.38%	32.54%	7.82%	24.97%
5% LSD VARIETY MEANS (*****=NS)						
		0.53	58.94	21.00	1.67	*****
C O R R E L A T I O N S						
		(+ - PROB=-.05		++ - PROB=-.01)		
YIELD	KG/HA					
DAYS TO FLOWER		-0.09	0.19	0.25	0.44++	0.01
DAYS TO MATURITY		0.20	0.14	0.42++	-0.54++	-0.05
NODULE NUMBER 1		0.06	0.15	0.00	-0.32+	0.05
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT		0.00	0.00	0.00	0.00	0.00
HEIGHT		-0.13	0.23	0.65++	-0.18	-0.05
LODGING		0.04	0.29+	0.46++	-0.41++	-0.13
SHATTER		1.00	0.07	-0.00	0.23	-0.21
PLANTS HARVEST		0.07	1.00	-0.21	0.02	-0.11
PODS PER PLANT		-0.00	-0.21	1.00	-0.22	-0.03
100 SEED WEIGHT		0.23	0.02	-0.22	1.00	-0.02
QUALITY OF SEED		-0.21	-0.11	-0.03	-0.02	1.00

TABLE 146

EXPERIMENT 34

YEAR 1976

REGION - ASIA
 SITE - SURAT THANI
 LATITUDE - 9 DEG. 7 MIN. N
 COOPERATORS - W. BURANATHAN, P. JEWTRAKOOL, P. WONGSUKON
 DATE PLANTED - MAY 22, 1976
 SOIL TYPE - SAND 79%, SILT 9%, CLAY 9%, PH 5.1
 FERTILIZER USED (KG/HA) - N 30.0, P 12.0, K 24.0
 AMOUNT OF MOISTURE - 534 MM
 LOCAL VARIETY - S.J.2

COUNTRY - THAILAND

ELEVATION - 10 M

LONGITUDE - 99 DEG. 18 MIN. E

DATE HARVESTED - AUGUST, 1976

DATE HARVESTED - AUGUST, 1976

DATE HARVESTED - AUGUST, 1976

DATE HARVESTED - AUGUST, 1976

DATE HARVESTED - AUGUST, 1976

DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	JUPITER	687.85	34.00	116.50	28.75	164.75	0.05	1.33	48.25	1.00
16	COLUMBUS	655.76	23.75	86.75	64.75	193.00	0.11	1.15	29.33	1.00
9	BOSSIER	612.83	26.00	85.25	79.25	274.75	0.18	1.55	22.60	1.00
14	IMPROVED PELICAN	591.37	33.00	93.75	30.00	136.25	0.12	1.51	42.08	1.00
5	HILL	571.36	25.00	83.00	41.00	109.50	0.10	0.89	25.15	1.00
11	CLARK 63	541.77	25.00	81.00	50.00	80.00	0.12	0.48	24.63	1.00
13	DAVIS	538.23	26.75	88.75	34.75	143.00	0.12	0.85	22.13	1.00
6	PICKETT 71	514.48	25.00	91.00	34.00	102.50	0.09	0.70	19.50	1.00
15	FORREST	469.68	26.00	89.25	63.00	173.25	0.43	1.04	25.33	1.00
4	RANSOM	444.05	25.50	82.50	45.25	147.25	0.07	0.51	21.55	1.00
7	S.J.2	433.63	33.00	94.00	41.50	149.00	0.17	1.59	40.03	1.00
12	COBB	419.25	26.50	105.00	65.25	203.00	0.23	1.89	24.08	1.00
1	CALLAND	395.08	26.50	90.00	73.00	195.00	0.18	0.83	29.93	1.00
10	WILLIAMS	379.03	25.75	82.75	69.75	125.50	0.22	0.84	23.35	1.00
3	BRAGG	271.30	26.75	102.25	40.50	323.00	0.09	1.91	26.93	1.00
2	WOODWORTH	270.68	25.25	69.00	13.50	40.25	0.03	0.19	19.80	1.00
GRAND MEAN		487.27	27.11	90.05	48.39	160.00	0.14	1.08	27.79	1.00
STANDARD ERROR OF A VARIETY MEAN		120.47	0.76	2.54	15.32	38.35	0.08	0.30	2.02	0.00
COEFFICIENT OF VARIATION		49.45%	5.62%	5.64%	63.30%	47.94%	109.50%	55.55%	14.53%	0.00%
5% LSD VARIETY MEANS (*****=NS)		*****	2.17	7.24	*****	109.25	*****	0.85	5.75	0.00
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.09	0.11	0.20	0.25+	0.11	0.37++	0.39++	0.00
DAYS TO FLOWER		0.09	1.00	0.50++	-0.24	-0.02	-0.12	0.18	0.75++	0.00
DAYS TO MATURITY		0.11	0.50++	1.00	0.14	0.42++	0.10	0.49++	0.57++	0.00
NODULE NUMBER 1		0.20	-0.24	0.14	1.00	0.56++	0.51+	0.51++	0.03	0.00
NODULE NUMBER 2		0.25+	-0.02	0.42++	0.56++	1.00	0.27+	0.83++	0.24	0.00
NODULE WEIGHT 1		0.11	-0.12	0.10	0.51++	0.27+	1.00	0.32+	-0.01	0.00
NODULE WEIGHT 2		0.37++	0.18	0.49++	0.51++	0.83++	0.32+	1.00	0.43++	0.00
PLANT HEIGHT		0.39++	0.75++	0.57++	0.03	0.24	-0.01	0.43++	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		-0.12	-0.60++	-0.35++	0.18	-0.02	0.16	-0.12	-0.50++	0.00
PODS PER PLANT		0.39++	0.69++	0.62++	-0.06	0.16	-0.05	0.40++	0.73++	0.00
100 SEED WEIGHT		0.20	-0.17	0.37++	0.36++	0.43++	0.13	0.20	0.08	0.00
QUALITY OF SEED		-0.25+	-0.09	0.22	-0.02	-0.01	0.00	-0.12	-0.15	0.00

TABLE 146 EXPERIMENT 34 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	JUPITER	1.00	194.50	19.50	18.25	3.25	43.1	24.1
16	COLUMBUS	1.00	267.75	7.78	18.25	2.00	44.6	23.3
9	BOSSIER	1.00	236.75	10.10	16.88	3.00	44.2	24.0
14	IMPROVED PELICAN	1.00	217.25	13.75	13.75	1.75	43.9	23.9
5	HILL	1.00	315.00	7.28	15.50	2.00	40.9	22.5
11	CLARK 63	1.00	318.00	5.83	16.00	2.75	41.1	25.4
13	DAVIS	1.00	295.50	6.97	16.88	2.50	43.5	22.4
6	PICKETT 71	1.00	231.75	9.90	15.50	3.25	42.8	24.1
15	FORREST	1.00	285.25	10.03	15.75	2.25	42.9	22.3
4	RANSOM	1.00	261.50	6.25	17.00	2.25	40.5	26.3
7	S.J.2	1.00	193.75	14.80	13.00	2.25	42.4	23.7
12	COBB	1.00	284.75	10.58	17.50	3.00	39.7	24.5
1	CALLAND	1.00	267.00	5.20	22.38	3.00	41.4	22.8
10	WILLIAMS	1.00	283.25	4.73	17.63	3.00	44.3	22.7
3	BRAGG	1.00	278.50	7.55	18.88	2.75	43.7	22.8
2	WOODWORTH	1.00	256.50	4.93	14.13	3.00	43.4	22.9
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	261.69	9.07	16.70	2.63		
COEFFICIENT OF VARIATION		0.00	12.14	1.14	0.95	0.27		
5% LSD VARIETY MEANS (*****=NS)		0.00	9.28%	25.13%	11.43%	20.28%		
		0.00	34.57	3.25	2.72	0.76		
C O R R E L A T I O N S								
			(+ - PROB=.05		++ - PROB=.01)			
YIELD KG/HA		0.00	-0.12	0.39++	0.20	-0.25+		
DAYS TO FLOWER		0.00	-0.60++	0.69++	-0.17	-0.09		
DAYS TO MATURITY		0.00	-0.35++	0.62++	0.37++	0.22		
NODULE NUMBER 1		0.00	0.18	-0.06	0.36++	-0.02		
NODULE NUMBER 2		0.00	-0.02	0.16	0.43++	-0.01		
NODULE WEIGHT 1		0.00	0.16	-0.05	0.13	0.00		
NODULE WEIGHT 2		0.00	-0.12	0.40++	0.20	-0.12		
PLANT HEIGHT		0.00	-0.50++	0.73++	0.08	-0.15		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.59++	0.19	-0.07		
PODS PER PLANT		0.00	-0.59++	1.00	-0.14	-0.00		
100 SEED WEIGHT		0.00	0.19	-0.14	1.00	0.25+		
QUALITY OF SEED		0.00	-0.07	-0.00	0.25+	1.00		

TABLE 147 EXPERIMENT 31 YEAR 1976

REGION - ASIA
 SITE - SUWAN FARM
 LATITUDE - 14 DEG. 30 MIN. N
 COOPERATORS - P. YINGCHOL, J. VERAWUDH, E. SAROBOL
 DATE PLANTED - AUGUST 4, 1976
 FERTILIZER USED (KG/HA) - N 40.0, P 21.8
 AMOUNT OF MOISTURE - 593 MM

COUNTRY - THAILAND
 ELEVATION - 367 M
 LONGITUDE - 102 DEG. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
2	WOODWORTH	736.89	23.00	65.00	55.75	177.75	0.13	1.40	52.50	2.50
7	CUTLER 71	650.57	23.00	65.00	80.25	164.00	0.29	1.20	62.00	4.00
10	WILLIAMS	623.74	23.00	65.00	83.00	228.75	0.32	1.62	53.00	4.00
12	COBB	605.20	23.00	68.25	38.50	146.25	0.21	1.52	47.75	2.25
1	CALLAND	589.17	23.00	65.75	62.25	161.00	0.23	1.09	63.75	3.75
11	CLARK 63	520.81	23.00	65.00	72.50	159.75	0.23	0.98	56.25	4.25
16	COLUMBUS	513.73	23.00	65.00	87.50	244.00	0.25	1.56	57.50	2.25
6	PICKETT 71	460.13	23.00	65.00	36.00	178.25	0.13	1.64	35.50	1.50
4	RANSOM	439.25	23.00	65.00	90.00	240.75	0.33	1.60	38.50	2.00
5	HILL	411.22	30.00	66.50	83.50	130.00	0.37	0.87	52.00	3.00
13	DAVIS	326.86	28.25	67.50	115.25	202.50	0.55	1.55	45.75	1.50
3	BAGG	278.11	23.00	65.25	115.25	445.00	0.26	1.94	48.50	2.50
9	BOSSIER	271.07	23.00	65.00	82.00	270.75	0.36	2.33	40.25	1.75
15	FORREST	252.00	23.00	66.00	57.50	207.75	0.14	1.35	45.75	2.25
14	IMPROVED PELICAN	123.31	30.00	97.00	117.75	200.00	0.39	1.18	71.75	3.00
8	JUPITER	38.76	44.00	97.00	237.00	286.00	1.32	1.30	75.25	3.00
GRAND MEAN		427.55	25.52	69.58	88.38	215.16	0.34	1.44	52.88	2.72
STANDARD ERROR OF A VARIETY MEAN		55.30	0.44	0.37	13.45	30.46	0.06	0.17	2.00	0.41
COEFFICIENT OF VARIATION		25.87%	3.43%	1.07%	30.44%	28.31%	33.47%	23.71%	7.55%	30.19%
5% LSD VARIETY MEANS (*****=NS)		157.53	1.25	1.06	38.32	86.75	0.16	0.49	5.68	1.17

(* - PROB=.05 ** - PROB=.01)

C O R R E L A T I O N S

YIELD KG/HA	1.00	-0.58++	-0.60++	-0.61++	-0.35++	-0.60++	-0.08	-0.11	0.20
DAYS TO FLOWER	-0.58++	1.00	0.81++	0.80++	0.11	0.89++	-0.19	0.57++	0.04
DAYS TO MATURITY	-0.60++	0.81++	1.00	0.65++	0.10	0.67++	-0.16	0.68++	0.06
NODULE NUMBER 1	-0.61++	0.80++	0.65++	1.00	0.38++	0.90++	-0.03	0.51++	0.08
NODULE NUMBER 2	-0.35++	0.11	0.10	0.38++	1.00	0.25	0.67++	-0.01	-0.22
NODULE WEIGHT 1	-0.60++	0.89++	0.67++	0.90++	0.25	1.00	-0.01	0.46++	0.03
NODULE WEIGHT 2	-0.08	-0.19	-0.16	-0.03	0.67++	-0.01	1.00	-0.41++	-0.30+
PLANT HEIGHT	-0.11	0.57++	0.68++	0.51++	-0.01	0.46++	-0.41++	1.00	0.44++
LOGGING	0.20	0.04	0.06	0.08	-0.22	0.03	-0.30+	0.44++	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.47++	-0.41++	-0.70++	-0.41++	-0.12	-0.39++	-0.01	-0.39++	0.02
PODS PER PLANT	0.16	-0.28+	0.00	-0.29+	-0.03	-0.35++	0.08	0.00	-0.13
100 SEED WEIGHT	-0.02	0.32+	0.49++	0.37++	-0.04	0.34++	-0.23	0.74++	0.30+
QUALITY OF SEED	-0.50++	0.42++	0.42++	0.36++	0.09	0.36++	-0.21	0.26+	-0.22

TABLE 147 EXPERIMENT 31 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
2	WOODWORTH	1.00	247.75	14.78	10.58	3.25	46.7	18.7
7	CUTLER 71	1.00	240.50	11.28	13.28	3.00	--	--
10	WILLIAMS	1.00	241.25	12.48	9.93	3.50	48.1	17.9
12	COBB	1.00	246.50	19.65	8.95	3.00	45.2	19.3
1	CALLAND	1.00	242.75	12.88	12.45	4.75	44.3	19.1
11	CLARK 63	1.00	249.75	14.58	10.38	3.00	46.4	19.1
16	COLUMBUS	1.00	243.75	15.33	11.88	3.75	48.6	18.5
6	PICKETT 71	1.00	218.25	13.00	7.75	3.00	48.4	17.4
4	RANSON	1.00	246.00	14.55	9.45	4.50	--	--
5	HILL	1.00	270.00	11.20	8.97	4.25	--	--
13	DAVIS	1.00	262.00	11.43	9.57	4.50	50.3	16.1
3	BAGG	1.00	242.00	13.38	9.00	3.75	47.5	16.4
9	BOSSIER	1.00	230.00	14.65	7.93	3.25	49.1	15.6
15	FORREST	1.00	265.25	16.28	7.27	5.00	48.6	16.3
14	IMPROVED PELICAN	1.00	158.00	17.55	13.70	4.75	--	--
8	JUPITER	1.00	192.25	9.97	12.30	5.00	--	--
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSL VARIETY MEANS (*****=NS)								
C O R R E L A T I O N S								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								
++ - PROB=.05 ++ - PROB=.01								
0.47++ 0.16 -0.02 -0.50++								
-0.41++ -0.28+ 0.32+ 0.42++								
-0.70++ 0.00 0.49++ 0.42++								
-0.41++ -0.29+ 0.37++ 0.36++								
-0.12 -0.03 -0.04 0.09								
-0.39++ -0.35++ 0.34++ 0.36++								
-0.01 0.08 -0.23 -0.21								
-0.39++ 0.00 0.74++ 0.26+								
0.02 -0.13 0.30+ -0.22								
0.00 0.00 0.00 0.00								
1.00 -0.17 -0.45++ -0.21								
-0.17 1.00 -0.13 -0.02								
-0.45++ -0.13 1.00 0.17								
-0.21 -0.02 0.17 1.00								

TABLE 148 EXPERIMENT 102 YEAR 1976

REGION - EUROPE
 SITE - GODOLOLO
 LATITUDE - 47 DEG. N
 COOPERATOR - ANDOR BALINT
 DATE PLANTED - MAY 3, 1976
 SOIL TYPE - BLACK EARTH CLAY
 FERTILIZER USED (KG/HA) - N 50.0, P 150.0, K 100.0
 AMOUNT OF MOISTURE - 398 MM

COUNTRY - HUNGARY
 LONGITUDE - 19 DEG. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	HODGSON	2172.00	66.00	156.00	47.00	0.00	0.00	0.00	70.35	1.00
14	SWIFT	1614.00	54.00	145.00	28.50	0.00	0.00	0.00	84.65	1.25
13	STEELE	1601.50	73.00	163.00	33.75	0.00	0.00	0.00	72.75	1.25
10	AMSOY 71	1392.00	60.00	145.00	35.75	0.00	0.00	0.00	88.90	1.00
7	BEESON	1379.00	57.00	145.00	45.25	0.00	0.00	0.00	86.37	1.25
12	HARK	1164.50	59.00	145.00	79.75	0.00	0.00	0.00	79.00	1.00
9	CORSOY	1112.00	60.00	145.00	56.75	0.00	0.00	0.00	86.87	1.25
2	WOODWORTH	1099.00	68.00	143.00	36.00	0.00	0.00	0.00	78.12	1.25
4	WILLIAMS	1073.50	56.00	140.00	45.50	0.00	0.00	0.00	84.52	2.50
3	CUTLER 71	1048.50	56.00	142.00	50.25	0.00	0.00	0.00	92.90	1.25
5	CLARK 63	994.00	55.00	149.00	41.25	0.00	0.00	0.00	80.18	1.50
15	ALTONA	839.50	54.00	116.00	27.50	0.00	0.00	0.00	46.98	1.00
1	CALLAND	804.00	56.00	129.00	31.75	0.00	0.00	0.00	84.98	1.00
6	WELLS	631.50	73.00	146.75	30.75	0.00	0.00	0.00	70.60	1.00
8	COLUMBUS	565.50	73.00	163.00	103.25	0.00	0.00	0.00	84.70	2.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.04	1.00							
DAYS TO MATURITY		0.28+	0.67++	1.00						
NODULE NUMBER 1		-0.22	0.22	0.38++	1.00					
NODULE NUMBER 2		0.00	0.22	0.38++	1.00					
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	1.00				
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	1.00				
PLANT		0.05	-0.12	0.31+	0.00	0.00	1.00			
LODGING		-0.11	0.01	0.16	0.00	0.00	0.00	1.00		
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.21	1.00	
PLANTS HARVEST		-0.19	0.03	-0.06	-0.48++	0.00	0.00	0.00	0.00	
PODS PER PLANT		0.31+	0.09	0.43++	0.22	0.00	0.00	0.00	0.14	
100 SEED WEIGHT		0.40++	-0.19	-0.28+	-0.40++	0.00	0.00	0.00	0.39++	
QUALITY OF SEED		-0.41++	0.33++	0.34++	0.45++	0.00	0.00	0.00	-0.48++	
									0.33++	0.35++

TABLE 148 EXPERIMENT 102 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	HODGSON	1.00	245.50	18.03	16.63	3.00	38.7	19.9
14	SWIFT	1.00	293.75	15.35	19.20	1.75	39.9	18.3
13	STEELE	1.00	276.00	15.33	18.88	2.25	42.8	16.6
10	AMSOY 71	1.00	260.25	16.18	16.15	2.75	41.2	18.2
7	BEESON	1.00	272.00	17.88	17.65	3.00	41.2	17.7
12	HARK	1.00	221.50	15.18	15.55	3.00	43.3	17.0
9	CORSOY	1.00	260.50	16.30	13.48	4.00	41.6	17.7
2	WOODWORTH	1.00	282.25	15.63	11.75	4.00	42.1	17.0
4	WILLIAMS	1.00	280.75	18.25	12.45	4.00	40.1	19.2
3	CUTLER 71	1.00	256.25	21.18	11.53	4.00	40.8	18.3
5	CLARK 63	1.00	290.75	15.53	11.15	4.00	39.6	19.0
15	ALTONA	1.00	271.00	9.70	21.58	1.75	40.5	18.0
1	CALLAND	1.00	267.25	10.90	13.20	3.00	39.9	18.6
6	WELLS	1.00	302.25	11.15	14.28	4.00	42.3	18.3
8	COLUMBUS	1.00	256.00	21.63	8.83	5.00	41.5	17.8
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	269.07	15.88	14.82	3.30		
COEFFICIENT OF VARIATION		0.00	12.23	1.79	0.81	0.16		
5% LSD VARIETY MEANS (*****=NS)		0.00%	9.09%	22.56%	10.87%	9.66%		
		0.00	34.90	5.11	2.30	0.45		
C O R R E L A T I O N S								
			(+ - PROB=.05		+ - PROB=.01)			
YIELD	KG/HA	0.00	-0.19	0.31+	0.40++	-0.41++		
DAYS TO FLOWER		0.00	0.03	0.09	-0.19	0.33++		
DAYS TO MATURITY		0.00	-0.06	0.43++	-0.28+	0.34++		
NODULE NUMBER 1		0.00	-0.48++	0.22	-0.40++	0.45++		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	-0.14	0.39++	-0.48++	0.38++		
LODGING		0.00	0.07	0.19	-0.37++	0.35++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
HARVEST		0.00	1.00	-0.08	0.08	-0.01		
PLANTS PER PLANT		0.00	-0.08	1.00	-0.32+	0.30+		
PODS PER PLANT		0.00	0.08	-0.32+	1.00	-0.87++		
100 SEED WEIGHT		0.00	-0.01	0.30+	-0.87++	1.00		
QUALITY OF SEED		0.00						

TABLE 149 EXPERIMENT 101 YEAR 1976

REGION - EUROPE
 SITE - SZARVAS
 LATITUDE - 46 DEG. 51 MIN. N
 COOPERATOR - ELEMER POSGAY
 DATE PLANTED - MAY 7, 1976
 SOIL TYPE - SAND 18.0%, SILT 38.1%, CLAY 43.9%, PH 6.8
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 339 MM
 NUMBER OF IRRIGATIONS - 3 (120 MM)
 SUBSTITUTE VARIETY - MERIT
 LOCAL VARIETY - GSZ-3

COUNTRY - HUNGARY
 ELEVATION - 84 M
 LONGITUDE - 20 DEG. 35 MIN. E

DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
3	HODGSON	3021.00	43.50	147.00	38.00	176.50	0.12	0.85	114.25	3.50
2	GSZ-3	2789.50	44.00	148.00	24.00	28.00	0.15	0.26	126.60	4.75
5	SWIFT	2594.00	45.25	151.00	72.50	212.00	0.24	1.17	121.60	4.50
4	STEELE	2413.50	44.50	156.00	96.50	209.50	0.43	1.25	115.70	4.75
1	MERIT	2367.50	44.50	137.00	57.00	67.50	0.24	0.67	103.60	3.75
6	ALTONA	1537.50	42.50	121.00	47.50	27.50	0.14	0.24	77.10	2.25
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% ISD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		0.31	0.31	0.74++	-0.10	0.24	0.02	0.14	0.68++	0.56++
DAYS TO MATURITY		0.74++	1.00	0.43+	-0.07	0.27	0.05	0.30	0.19	0.30
NODULE NUMBER 1		-0.10	-0.07	0.16	1.00	0.48+	0.25	0.37	0.72++	0.72++
NODULE NUMBER 2		0.24	0.27	0.46+	0.48+	1.00	0.83++	0.51++	0.02	0.22
NODULE WEIGHT 1		0.02	0.05	0.25	0.83++	0.27	1.00	0.94++	0.16	0.24
NODULE WEIGHT 2		0.14	0.30	0.37	0.51++	0.94++	0.31	0.31	0.08	0.32
PLANT HEIGHT		0.68++	0.19	0.72++	0.02	0.16	0.08	1.00	0.09	0.24
LODGING		0.56++	0.30	0.72++	0.22	0.24	0.32	0.24	1.00	0.78++
SHATTER		0.09	0.40	-0.02	-0.04	-0.17	-0.01	-0.09	-0.05	-0.11
HARVEST		0.01	-0.30	0.03	0.04	0.15	-0.02	0.01	0.12	0.16
PLANTS PER 100 SEED		-0.01	0.23	-0.19	-0.16	-0.16	-0.08	-0.01	-0.21	-0.23
WEIGHT		-0.16	-0.03	0.02	-0.08	0.22	-0.07	0.18	-0.01	-0.04
QUALITY OF SEED		0.14	0.12	0.48+	0.28	0.49+	0.36	0.41+	0.10	0.22

TABLE 149 EXPERIMENT 101 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
3	HODGSON	1.00	185.50	30.00	17.80	1.25	41.8	18.7
2	GS2-3	1.25	141.50	33.25	17.90	1.00	42.0	18.0
5	SWIFT	1.00	170.50	24.25	18.50	1.00	41.1	17.9
4	STEELE	1.00	185.25	26.75	19.40	2.00	43.5	17.5
1	MERIT	1.25	115.25	62.00	16.35	1.00	41.7	18.8
6	ALTONA	1.00	187.00	26.75	19.28	1.00	43.6	16.7
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.08	164.17	33.83	18.20	1.21		
COEFFICIENT OF VARIATION		0.13	16.16	5.06	0.62	0.10		
5% LST VARIETY MEANS (*****=NS)		23.83%	19.69%	29.90%	6.84%	16.89%		
		*****	48.72	15.25	1.88	0.31		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.09	0.01	-0.01	-0.16	0.14		
DAYS TO FLOWER		0.40	-0.30	0.23	-0.03	0.12		
DAYS TO MATURITY		-0.02	0.03	-0.19	0.02	0.48+		
NODULE NUMBER 1		-0.04	0.04	-0.16	-0.08	0.28		
NODULE NUMBER 2		-0.17	0.15	-0.16	0.22	0.49+		
NODULE WEIGHT 1		-0.01	-0.02	-0.08	-0.07	0.36		
NODULE WEIGHT 2		-0.09	0.01	-0.01	0.18	0.41+		
PLANT HEIGHT		-0.05	0.12	-0.21	-0.01	0.10		
LODGING		-0.11	0.16	-0.23	-0.04	0.22		
SHATTER		1.00	-0.49+	0.55++	-0.12	-0.15		
PLANTS HARVEST		-0.49+	1.00	-0.64++	0.43+	0.27		
PODS PER PLANT		0.55++	-0.64++	1.00	-0.45+	-0.19		
100 SEED WEIGHT		-0.12	0.43+	-0.45+	1.00	0.40		
QUALITY OF SEED		-0.15	0.27	-0.19	0.40	1.00		

TABLE 150 EXPERIMENT 97 YEAR 1976

REGION - EUROPE
 SITE - SASSARI, SARDINIA
 LATITUDE - 40 DEG. 43 MIN. N
 COOPERATOR - G. RIVOIRA
 DATE PLANTED - JUNE 8, 1976
 SOIL TYPE - SAND 55.4%, SILT 19.6%, CLAY 25.0%, PH 7.9
 FERTILIZER USED (KG/HA) - P 50.0
 AMOUNT OF MOISTURE - 675 MM
 NUMBER OF IRRIGATIONS - 7

COUNTRY - ITALY
 ELEVATION - 80 M
 LONGITUDE - 8 DEG. 33 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	WELLS	4139.99	35.00	129.00	0.00	0.00	0.00	0.00	121.75	2.00
13	AMSOY 71	4092.48	35.25	133.50	0.00	0.00	0.00	0.00	120.25	2.75
14	HODGSON	3994.13	33.00	114.00	0.00	0.00	0.00	0.00	100.75	1.75
12	CORSOY	3967.46	35.75	121.50	0.00	0.00	0.00	0.00	115.00	1.75
5	WILLIAMS	3817.85	43.00	135.25	0.00	0.00	0.00	0.00	125.00	2.00
9	BEESON	3674.07	35.00	132.75	0.00	0.00	0.00	0.00	115.00	2.50
2	WOODWORTH	3589.47	43.00	114.00	0.00	0.00	0.00	0.00	107.00	2.75
1	CALLAND	3429.44	43.00	133.50	0.00	0.00	0.00	0.00	130.00	3.75
6	CLARK 63	3223.98	45.00	136.75	0.00	0.00	0.00	0.00	133.75	3.00
15	HARK	3215.64	33.75	134.50	0.00	0.00	0.00	0.00	105.50	2.00
16	STEELE	2890.16	33.00	114.00	0.00	0.00	0.00	0.00	91.25	2.00
4	CUTLER 71	2865.16	45.00	149.00	0.00	0.00	0.00	0.00	118.50	2.00
10	COLUMBUS	2697.21	47.00	145.75	0.00	0.00	0.00	0.00	119.25	3.50
11	ESSEX	2633.44	77.50	192.00	0.00	0.00	0.00	0.00	120.25	4.25
7	FOREST	1833.70	76.00	192.00	0.00	0.00	0.00	0.00	141.25	4.25
3	HILL	1587.82	77.50	192.00	0.00	0.00	0.00	0.00	112.75	3.50
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		3228.25	46.11	141.84	0.00	0.00	0.00	0.00	117.33	2.73
COEFFICIENT OF VARIATION		322.62	0.24	2.72	0.00	0.00	0.00	0.00	7.89	0.56
5% LSD VARIETY MEANS (*****=NS)		918.97	1.05%	3.84%	0.00%	0.00%	0.00%	0.00%	13.45%	40.60%
C O R R E L A T I O N S (+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	-0.57++	-0.50++	0.00	0.00	0.00	0.00	0.41++	-0.11
DAYS TO FLOWER		-0.57++	1.00	0.93++	0.00	0.00	0.00	0.00	0.25+	0.54++
DAYS TO MATURITY		-0.50++	0.93++	1.00	0.00	0.00	0.00	0.00	0.33++	0.55++
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	0.41++	0.25+	0.33++	0.00	0.00	0.00	0.00	0.00	0.00
LODGING		-0.11	0.54++	0.55++	0.00	0.00	0.00	0.00	1.00	0.54++
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54++	1.00
HARVEST		0.08	-0.17	-0.33++	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS PER	PLANT	0.14	0.35++	0.39++	0.00	0.00	0.00	0.00	-0.43++	-0.27+
PODS PER	100 SEED	0.52++	-0.73++	-0.64++	0.00	0.00	0.00	0.00	0.59++	0.45++
QUALITY	OF SEED	-0.04	0.54++	0.46++	0.00	0.00	0.00	0.00	-0.00	-0.28+
									0.44++	0.52++

TABLE 150 EXPERIMENT 97 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	WELLS	1.00	264.75	31.85	20.48	2.50
13	AMSOY 71	1.00	233.25	29.43	23.50	1.75
14	HODGSON	1.00	241.00	35.03	21.65	1.75
12	CORSOY	1.00	236.25	32.80	19.40	2.00
5	WILLIAMS	1.00	241.00	24.95	24.80	1.75
9	BEESON	1.00	227.75	28.88	23.00	1.75
2	WOODWORTH	1.00	270.50	26.18	20.28	3.00
1	CALLAND	1.00	219.50	27.33	21.77	2.75
6	CLARK 63	1.00	235.25	36.93	20.95	2.25
15	HARK	1.00	212.75	25.95	20.80	2.00
16	STEELE	1.00	257.25	19.25	21.80	1.50
4	CUTLER 71	1.00	194.00	30.88	24.00	2.75
10	COLUMBUS	1.00	197.00	45.00	19.33	2.50
11	ESSEX	1.00	239.50	38.75	16.00	3.25
7	FORREST	1.00	207.75	46.03	15.75	2.75
3	HILL	1.00	225.75	32.05	15.10	3.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	231.45	31.95	20.54	2.33
COEFFICIENT OF VARIATION		0.00	12.70	4.42	0.75	0.27
5% LSD VARIETY MEANS (*****=NS)		0.00	10.97%	27.70%	7.35%	23.04%
		0.00	36.17	12.60	2.15	0.76
C O R R E L A T I O N S						
			(+ - PROB=.05	++ - PROB=.01)		
YIELD	KG/HA	0.00	0.08	0.14	0.52++	-0.04
DAYS TO FLOWER		0.00	-0.17	0.35++	-0.73++	0.54++
DAYS TO MATURITY		0.00	-0.33++	0.39++	-0.64++	0.46++
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT		0.00	-0.43++	0.59++	-0.00	0.44++
HEIGHT		0.00	-0.27+	0.45++	-0.28+	0.52++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	-0.48++	0.04	-0.29+
PLANTS		0.00	-0.48++	1.00	-0.21	0.47++
PODS PER		0.00	0.04	-0.21	1.00	-0.34++
100 SEED		0.00	-0.29+	0.47++	-0.34++	1.00
QUALITY	OF SEED	0.00				

TABLE 151 EXPERIMENT 99 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
2	WOODWORTH	2.00	247.75	23.53	18.80	3.00
12	CORSOY	1.25	227.00	32.90	19.88	3.50
13	AMSOY 71	1.25	247.75	30.50	20.93	3.25
5	WILLIAMS	2.00	272.25	21.30	20.08	3.00
9	BEESON	1.50	263.00	23.38	19.23	3.00
14	HODGSON	1.00	266.50	27.10	18.33	3.25
6	CLARK 63	2.00	245.50	24.48	16.53	2.50
1	CALLAND	1.25	259.00	27.00	19.30	3.00
15	HARK	1.25	222.00	33.10	20.60	3.25
16	STEELE	1.00	262.00	26.25	20.13	4.00
4	CUTLER 71	1.75	239.00	22.23	18.48	2.00
8	WELLS	1.00	270.75	25.08	16.58	4.00
7	FORREST	1.00	174.25	46.65	17.73	2.00
10	COLUMBUS	2.00	235.50	24.35	15.38	2.00
3	HILL	1.00	180.00	44.30	17.28	2.00
11	ESSEX	1.00	268.50	30.03	16.18	3.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.39	242.55	28.88	18.46	2.92
COEFFICIENT OF VARIATION		0.16	10.33	1.78	1.08	0.18
5% LSD VARIETY MEANS (*****=NS)		22.94%	8.52%	12.31%	11.86%	12.18%
		0.45	29.42	5.07	3.06	0.51
C O R R E L A T I O N S						
			(+ - PROB=.05		+ - PROB=.01)	
YIELD	KG/HA	0.26+	0.17	-0.16	0.54++	0.22
DAYS TO FLOWER		-0.09	-0.38++	0.46++	-0.38++	-0.52++
DAYS TO MATURITY		-0.38++	-0.39++	0.69++	-0.16	-0.26+
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.15	-0.28+	0.21	-0.21	-0.65++
LODGING		0.08	-0.51++	0.56++	-0.06	-0.39++
SHATTER		1.00	0.12	-0.40++	0.04	-0.27+
HARVEST		0.12	1.00	-0.74++	-0.01	0.44++
PLANTS PER PLANT		-0.40++	-0.74++	1.00	0.02	-0.29+
PODS PER PLANT		0.04	-0.01	0.02	1.00	0.24
100 SEED WEIGHT		-0.27+	0.44++	-0.29+	0.24	1.00
QUALITY OF SEED						

TABLE 152 EXPERIMENT 120 YEAR 1976

REGION - EUROPE
 SITE - RADZIKOW
 LATITUDE - 52 DEG. 13 MIN. N
 COOPERATOR - SOYBEAN LABORATORY, PLANT BREEDING AND ACCLIMATIZATION INSTITUTE
 DATE PLANTED - MAY 25, 1976
 SOIL TYPE - LIGHT CLAY PODSOL, PH 5.8
 FERTILIZER USED (KG/HA) - N 25.0, P 35.2, K 83.0
 AMOUNT OF MOISTURE - 227 MM
 LOCAL VARIETY - WARSZAWSKA
 COUNTRY - POLAND
 ELEVATION - 85 - 92 M
 LONGITUDE - 20 DEG. 39 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	NORMAN	1371.94	43-50	124.75	42.75	81.00	0.29	0.91	73.32	1.50
5	WARSZAWSKA	1292.34	42.50	125.75	47.75	53.00	0.43	1.31	61.05	2.50
2	PORTAGE	1204.41	42.75	123.50	26.00	62.25	0.14	0.63	71.43	1.00
3	ACNE	1181.49	42.50	124.00	24.25	68.25	0.14	0.88	73.73	1.25
1	ALTONA	1166.07	42.25	122.00	18.00	27.25	0.13	0.47	73.60	1.75
GRAND MEAN		1243.25	42.70	124.00	31.75	58.35	0.22	0.84	70.62	1.60
STANDARD ERROR OF A VARIETY MEAN		96.45	0.34	1.00	11.33	9.76	0.08	0.22	2.96	0.30
COEFFICIENT OF VARIATION		15.52%	1.59%	1.61%	71.37%	33.46%	68.83%	52.65%	8.38%	37.41%
5% LSD VARIETY MEANS (*****=NS)		*****	*****	*****	*****	30.08	*****	*****	9.12	0.92
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.09	-0.47+	0.26	0.18	0.42	0.38	-0.13	0.10
DAYS TO FLOWER		0.09	1.00	-0.09	0.44	0.40	0.32	0.31	0.12	-0.04
DAYS TO MATURITY		-0.47+	-0.09	1.00	-0.18	0.09	-0.25	-0.04	0.06	0.12
NODULE NUMBER 1		0.26	0.44	-0.18	1.00	0.29	0.92++	0.57++	-0.23	0.07
NODULE NUMBER 2		0.18	0.40	0.09	0.29	1.00	0.17	0.49+	0.39	-0.20
NODULE WEIGHT 1		0.42	0.32	-0.25	0.92++	0.17	1.00	0.62++	-0.34	0.23
NODULE WEIGHT 2		0.38	0.31	-0.04	0.57++	0.49+	0.62++	1.00	0.03	0.03
PLANT		-0.13	0.12	-0.04	-0.23	0.39	-0.34	0.03	1.00	-0.28
LODGING		0.10	-0.04	0.12	0.07	-0.20	0.23	0.03	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		-0.13	0.13	0.26	-0.32	-0.20	-0.48+	-0.42	0.11	-0.17
PLANTS		0.42	-0.24	0.08	0.20	0.13	0.38	0.17	-0.38	0.42
PODS PER		-0.58++	-0.16	0.06	-0.37	-0.43	-0.45+	-0.44	0.22	-0.29
100 SEED		-0.14	0.09	0.41	-0.14	0.26	-0.17	0.12	-0.11	-0.18
QUALITY OF SEED										

TABLE 152

EXPERIMENT 120

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	NORMAN	1.00	303.00	19.15	18.05	1.50	44.8	14.1
5	WARSZAWSKA	1.00	290.75	26.25	17.75	2.00	43.8	15.3
2	PORTAGE	1.00	303.00	18.78	19.95	2.50	45.2	16.0
3	ACHE	1.00	302.00	21.67	20.35	2.00	45.6	14.5
1	ALTONA	1.00	299.75	14.80	20.70	1.00	44.0	17.5
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	299.70	20.13	19.36	1.80		
COEFFICIENT OF VARIATION		0.00	2.96	2.13	0.61	0.18		
5% LSD VARIETY MEANS (*****=NS)		0.00%	1.98%	21.16%	6.31%	20.29%		
		0.00	*****	6.56	1.88	0.56		
C O R R E L A T I O N S								
				(+ - PROB=.05		++ - PROB=.01)		
YIELD KG/HA				-0.13	0.42	-0.58++	-0.14	
DAYS TO FLOWER				0.00	-0.24	-0.16	0.09	
DAYS TO MATURITY				0.00	0.08	0.06	0.41	
NODULE NUMBER 1				-0.32	0.20	-0.37	-0.14	
NODULE NUMBER 2				-0.20	0.13	-0.43	0.26	
NODULE WEIGHT 1				-0.48+	0.38	-0.45+	-0.17	
NODULE WEIGHT 2				-0.42	0.17	-0.44	0.12	
PLANT HEIGHT				0.11	-0.38	0.22	-0.11	
LODGING				-0.17	0.42	-0.29	-0.18	
SHATTER				0.00	0.00	0.00	0.00	
HARVEST				1.00	-0.31	0.45+	0.19	
PODS PER PLANT				0.00	1.00	-0.50+	0.22	
100 SEED WEIGHT				0.00	-0.50+	1.00	0.01	
QUALITY OF SEED				0.00	0.22	0.01	1.00	

TABLE 153 EXPERIMENT 74 YEAR 1976

REGION - EUROPE
 SITE - PORTO
 LATITUDE - 41 DEG. 20 MIN. N
 COOPERATORS - A. SILVA, D.S. SOUSA, A.D. ANGELICO
 DATE PLANTED - MAY 18-19, 1976
 SOIL PH 5.7
 FERTILIZER USED (KG/HA) - N 40.0, P 90.0, K 90.0
 AMOUNT OF MOISTURE - 628 MM
 NUMBER OF IRRIGATIONS - 4

COUNTRY - PORTUGAL
 ELEVATION - 29 M
 LONGITUDE - 8 DEG. 40 MIN. W
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	WELLS	2306.71	48.50	124.50	0.00	0.00	0.00	0.00	87.50	1.50
1	CALLAND	2221.28	59.75	140.25	0.00	0.00	0.00	0.00	98.75	2.00
2	WOODWORTH	2202.52	51.25	164.50	0.00	0.00	0.00	0.00	89.25	2.00
8	BEESON	2194.19	53.50	127.25	0.00	0.00	0.00	0.00	97.02	2.50
4	WILLIAMS	2192.10	61.25	135.50	0.00	0.00	0.00	0.00	97.47	1.75
5	CLARK 63	2144.18	64.00	140.75	0.00	0.00	0.00	0.00	108.13	3.75
3	CUTLER 71	2075.41	64.50	155.00	0.00	0.00	0.00	0.00	118.00	3.25
9	COLUMBUS	1041.87	55.25	187.25	0.00	0.00	0.00	0.00	107.83	3.75
10	ESSEX	754.32	90.00	181.50	0.00	0.00	0.00	0.00	116.05	4.00
6	FORREST	581.37	94.25	186.00	0.00	0.00	0.00	0.00	127.50	5.00
	GRAND MEAN	1771.40	64.23	154.25	0.00	0.00	0.00	0.00	104.75	2.95
	STANDARD ERROR OF A VARIETY MEAN	221.96	0.63	5.07	0.00	0.00	0.00	0.00	3.11	0.61
	COEFFICIENT OF VARIATION	25.06%	1.95%	6.57%	0.00%	0.00%	0.00%	0.00%	5.94%	41.31%
	5% LSD VARIETY MEANS (*****=NS)	644.07	1.82	14.70	0.00	0.00	0.00	0.00	9.02	1.77

C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)

YIELD	KG/HA	1.00	-0.68++	-0.77++	0.00	0.00	0.00	0.00	-0.67++	-0.71++
DAYS TO FLOWER	1.00	-0.68++	1.00	0.57++	0.00	0.00	0.00	0.00	0.76++	0.53++
DAYS TO MATURITY	-0.77++	0.57++	1.00	0.00	0.00	0.00	0.00	0.00	0.56++	0.54++
NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT	-0.67++	0.76++	0.76++	0.56++	0.00	0.00	0.00	0.00	1.00	0.73++
LODGING	-0.71++	0.53++	0.54++	0.54++	0.00	0.00	0.00	0.00	0.73++	1.00
SHATTER	0.08	-0.29	-0.13	-0.13	0.00	0.00	0.00	0.00	-0.26	-0.04
HARVEST	0.03	0.01	-0.08	-0.08	0.00	0.00	0.00	0.00	0.20	0.09
PLANTS	0.43++	-0.25	-0.33+	-0.33+	0.00	0.00	0.00	0.00	-0.31	-0.31
PODS PER 100 SEED	0.54++	-0.44++	-0.50++	-0.50++	0.00	0.00	0.00	0.00	-0.10	-0.06
QUALITY OF SEED	-0.20	0.05	0.13	0.13	0.00	0.00	0.00	0.00	-0.02	0.20

TABLE 153 EXPERIMENT 74 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	WELLS	2.25	145.75	58.23	18.50	5.00	44.3	19.4
1	CALLAND	1.25	161.75	41.58	23.25	4.75	42.4	20.2
2	WOODWORTH	1.50	154.75	46.13	17.25	5.00	41.1	19.9
8	BEESON	2.00	165.75	56.25	21.25	4.75	43.8	19.1
4	WILLIAMS	1.25	117.00	45.55	22.00	3.75	41.1	19.9
5	CLARK 63	1.25	145.75	47.25	20.75	3.50	41.9	20.2
3	CUTLER 71	1.00	182.25	43.70	23.00	4.00	41.4	20.0
9	COLUMBUS	1.75	134.50	33.00	18.25	4.25	41.8	21.8
10	ESSEX	1.50	164.00	38.73	15.75	4.75	43.2	18.8
6	FORREST	1.00	143.50	37.83	15.25	5.00	40.7	17.3
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.48	151.50	44.82	19.53	4.48		
COEFFICIENT OF VARIATION		0.37	16.87	7.73	0.90	0.37		
5% LSD VARIETY MEANS (*****=NS)		50.32%	22.27%	34.49%	9.24%	16.47%		
		*****	*****	*****	2.62	1.07		
C O R R E L A T I O N S								
		(+ - PROB=.05			++ - PROB=.01)			
YIELD		KG/HA	0.08	0.03	0.43++	0.54++	-0.20	
DAYS TO FLOWER		-0.29	0.01	-0.25	-0.44++	-0.44++	0.05	
DAYS TO MATURITY		-0.13	-0.08	-0.33+	-0.50++	0.13	0.13	
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	
PLANT		-0.26	0.20	-0.33+	-0.10	-0.02	-0.02	
LODGING		-0.04	0.09	-0.31	-0.06	0.20	0.20	
SHATTER		1.00	-0.17	0.07	-0.02	0.27	0.27	
PLANTS HARVEST		-0.17	1.00	-0.44++	0.17	0.17	0.17	
PODS PER PLANT		0.07	-0.44++	1.00	0.11	-0.09	-0.09	
100 SEED WEIGHT		-0.02	0.17	0.11	1.00	-0.07	-0.07	
QUALITY OF SEED		0.27	0.17	-0.09	-0.07	1.00	1.00	

TABLE 154

EXPERIMENT 301

YEAR 1976

REGION - EUROPE
 SITE - SEVILLE
 LATITUDE - 37 DEG. 30 MIN. N
 COOPERATOR - I.N.I.A.
 DATE PLANTED - JUNE 18, 1976
 SOIL TYPE - SILTY CLAY, PH 7.25
 FERTILIZER USED (KG/HA) - N 25.0, P 55.0, K 105.0
 AMOUNT OF MOISTURE - 677 MM
 NUMBER OF IRRIGATIONS - 9 (450 MM)

COUNTRY - SPAIN
 ELEVATION - 20 M
 LONGITUDE - 5 DEG. 57 MIN. W
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	BEESON	4385.00	26.75	102.25	112.50	175.25	0.45	1.66	0.45	1.66	107.50	2.75
4	WILLIAMS	4216.25	27.00	105.25	122.75	262.75	0.29	1.72	0.29	1.72	103.75	2.00
9	CORSOY	3989.37	26.50	98.75	149.25	316.00	0.30	3.03	0.30	3.03	92.25	4.00
10	AMSOY 71	3928.12	26.50	101.75	110.25	255.50	0.18	1.77	0.18	1.77	115.00	3.75
2	WOODWORTH	3920.00	28.00	100.50	98.25	181.00	0.19	1.13	0.19	1.13	96.75	1.50
1	CALLAND	3866.87	26.50	114.75	116.50	174.00	0.30	1.06	0.30	1.06	117.00	2.75
6	WELLS	3840.00	25.50	97.75	95.75	242.50	0.33	2.17	0.33	2.17	101.25	1.75
5	CLARK 63	3831.25	27.25	113.75	140.00	263.25	0.28	1.50	0.28	1.50	106.25	2.75
12	HARK	3784.37	23.25	96.50	73.75	278.75	0.09	1.63	0.09	1.63	105.50	2.00
3	CUTLER 71	3634.37	27.50	114.25	202.75	322.25	0.57	1.59	0.57	1.59	114.25	3.25
13	STEELE	3570.62	23.00	84.25	83.75	262.00	0.12	1.68	0.12	1.68	96.25	2.75
8	COLUMBUS	3563.12	28.75	119.00	138.50	308.75	0.33	1.66	0.33	1.66	107.75	2.75
11	HODGSON	3560.00	23.00	84.75	102.00	186.50	0.10	1.16	0.10	1.16	90.50	2.00
GRAND MEAN		3853.03	26.12	102.58	118.92	248.35	0.27	1.67	0.27	1.67	104.15	2.62
STANDARD ERROR OF A VARIETY MEAN		163.48	0.24	1.25	18.45	35.50	0.06	0.27	0.06	0.27	3.04	0.31
COEFFICIENT OF VARIATION		8.49%	1.85%	2.44%	31.03%	28.59%	40.66%	31.80%	40.66%	31.80%	5.83%	23.51%
5% LSD VARIETY MEANS (*****=NS)		468.90	0.69	3.58	52.92	101.83	0.16	0.76	0.16	0.76	8.71	0.88

C O R R E L A T I O N S
 (* - PROB=-.05 ** - PROB=-.01)

YIELD	KG/HA	1.00	0.12	0.16	0.11	0.12	0.38++	0.39++	0.06	-0.06
DAYS TO FLOWER	0.12	1.00	0.79++	0.36++	0.36++	0.10	0.42++	0.39++	0.33+	0.21
DAYS TO MATURITY	0.16	0.16	1.00	0.42++	0.42++	0.15	0.52++	0.42++	0.04	0.21
NODULE NUMBER 1	0.11	0.11	0.36++	0.42++	1.00	0.36++	0.70++	0.18	0.60++	0.21
NODULE NUMBER 2	0.12	0.12	0.10	0.15	0.36++	1.00	0.20	0.66++	0.19	0.22
NODULE WEIGHT 1	0.38++	0.38++	0.42++	0.52++	0.70++	0.20	1.00	0.22	-0.15	0.15
NODULE WEIGHT 2	0.39++	0.39++	0.04	-0.02	0.18	0.66++	0.22	1.00	0.34+	0.13
PLANT HEIGHT	0.06	0.06	0.33+	0.60++	0.19	-0.15	0.34+	-0.24	-0.24	0.17
LODGING	-0.06	-0.06	0.21	0.21	0.22	0.15	0.13	0.17	1.00	0.29+
SHATTER	-0.28+	-0.28+	0.07	0.14	0.10	-0.12	0.05	-0.17	0.16	1.00
HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT	0.42++	0.42++	0.38++	0.49++	0.29+	-0.04	0.50++	-0.05	0.42++	0.11
QUALITY OF SEED	-0.14	-0.14	-0.34+	-0.29+	-0.17	-0.04	-0.17	0.10	-0.04	0.30+

TABLE 154

EXPERIMENT 301

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	BPESON	1.00	0.00	0.00	22.35	3.00	41.1	20.2
4	WILLIAMS	1.00	0.00	0.00	22.88	1.75	40.1	21.9
9	CORSOY	1.00	0.00	0.00	18.13	3.00	40.4	21.1
10	ANSOY 71	1.00	0.00	0.00	19.68	2.75	39.0	22.3
2	WOODWORTH	1.00	0.00	0.00	19.73	2.00	39.7	21.1
1	CALLAND	1.00	0.00	0.00	22.10	3.00	41.2	20.4
6	WELLS	1.00	0.00	0.00	17.40	3.00	41.1	20.8
5	CIARK 63	1.00	0.00	0.00	19.93	2.75	41.1	21.0
12	HARK	1.00	0.00	0.00	17.85	2.75	40.6	20.9
3	CUTLER 71	1.50	0.00	0.00	22.60	2.50	40.9	20.1
13	STEELE	1.00	0.00	0.00	19.73	2.75	40.9	21.2
8	COLUMBUS	1.00	0.00	0.00	18.83	1.75	40.4	20.8
11	HODGSON	1.00	0.00	0.00	17.53	2.75	39.1	22.4

GRAND MEAN
STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% LSD VARIETY MEANS (*****=NS)

1.04
0.14
26.71%

C O R R E L A T I O N S

(+ - PROB=.05

++ - PROB=.01)

YIELD KG/HA	-0.28+	0.00	0.00	0.42++	-0.14
DAYS TO FLOWER	0.07	0.00	0.00	0.38++	-0.34+
DAYS TO MATURITY	0.14	0.00	0.00	0.49++	-0.29+
NODULE NUMBER 1	0.10	0.00	0.00	0.29+	-0.17
NODULE NUMBER 2	-0.12	0.00	0.00	-0.04	-0.04
NODULE WEIGHT 1	0.05	0.00	0.00	0.50++	-0.17
NODULE WEIGHT 2	-0.17	0.00	0.00	-0.05	0.10
PLANT HEIGHT	0.16	0.00	0.00	0.42++	-0.04
LOGGING	0.06	0.00	0.00	0.11	0.30+
SHATTER	1.00	0.00	0.00	0.19	0.10
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00
PODS PER PLANT	0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT	0.19	0.00	0.00	1.00	-0.20
QUALITY OF SEED	0.10	0.00	0.00	-0.20	1.00

TABLE 155 EXPERIMENT 998 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	HODGSON	0.00	179.75	25.50	15.09	1.00	36.1	22.3
5	WELLS	0.00	196.75	30.25	15.67	2.00	41.8	19.5
10	AMSOY 71	0.00	194.75	21.00	15.97	4.00	35.6	20.4
6	BEESON	0.00	202.00	23.00	17.16	2.00	37.1	21.4
12	HARK	0.00	197.25	25.00	16.76	4.00	41.6	20.2
4	CLARK 63	0.00	157.00	40.25	12.30	1.00	35.8	21.7
9	CORSOY	0.00	200.00	29.00	14.41	4.00	40.6	18.0
7	BELI FOUR	0.00	166.75	25.75	15.73	1.00	37.8	20.4
1	CALLAND	0.00	154.50	61.00	18.00	2.00	36.8	21.7
8	KASNA	0.00	161.00	43.50	13.52	1.00	39.8	18.9
2	WOODWORTH	0.00	165.25	41.00	15.96	1.00	38.3	21.2
3	WILLIAMS	0.00	144.50	49.00	14.73	1.00	36.5	21.0

GRAND MEAN
STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% ISD VARIETY MEANS (*****=NS)

176.63
5.44
6.16%
15.64

34.52
2.08
12.08%
6.00

15.44
0.19
2.50%
0.55

2.00
0.00
0.00%
0.00

C O R R E L A T I O N S

(+ - PROB=.05 +- - PROB=.01)

YIELD KG/HA	0.00	0.45++	-0.52++	0.02	0.21
DAYS TO FLOWER	0.00	-0.54++	0.64++	-0.44++	-0.29+
DAYS TO MATURITY	0.00	-0.15	0.35+	0.05	0.15
NODULE NUMBER 1	0.00	0.02	0.04	-0.35+	0.00
NODULE NUMBER 2	0.00	0.15	-0.24	-0.07	0.12
NODULE WEIGHT 1	0.00	-0.02	0.01	-0.37++	0.00
NODULE WEIGHT 2	0.00	0.14	-0.20	-0.04	0.18
PLANT HEIGHT	0.00	0.10	-0.12	0.18	0.19
LOGGING	0.00	-0.31+	0.39++	-0.19	-0.24
SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	-0.63++	0.25	0.62++
PODS PER PLANT	0.00	-0.63++	1.00	-0.02	-0.41++
100 SEED WEIGHT	0.00	0.25	-0.02	1.00	0.31+
QUALITY OF SEED	0.00	0.62++	-0.41++	0.31+	1.00

TABLE 156 EXPERIMENT 60 YEAR 1976

REGION - MESOAMERICA COUNTRY - BAHAMAS
 SITE - SAN ANDROS ELEVATION - 2 M
 LATITUDE - 24 DEG. 57 MIN. N LONGITUDE - 78 DEG. 1 MIN. W
 COOPERATOR - JOHN R. THOMPSON
 DATE PLANTED - JUNE 11, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL PH - 7.6
 FERTILIZER USED (KG/HA) - N 45.0, P 113.0, K 45.0
 AMOUNT OF MOISTURE - 674 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSON	3970.43	0.00	124.75	0.00	0.00	0.00	0.00	62.25	1.75
11	COBB	3231.39	0.00	125.25	0.00	0.00	0.00	0.00	84.50	2.00
12	DAVIS	3224.81	0.00	119.75	0.00	0.00	0.00	0.00	68.00	1.25
7	CUTLER 71	3188.99	0.00	89.00	0.00	0.00	0.00	0.00	82.75	2.25
9	WILLIAMS	2889.64	0.00	91.00	0.00	0.00	0.00	0.00	74.00	2.00
14	FORREST	2654.26	0.00	107.75	0.00	0.00	0.00	0.00	73.50	2.00
15	COLUMBUS	2629.77	0.00	92.00	0.00	0.00	0.00	0.00	88.00	2.00
10	CLARK 63	2431.31	0.00	88.00	0.00	0.00	0.00	0.00	61.00	1.25
5	HILL	2406.82	0.00	97.50	0.00	0.00	0.00	0.00	63.50	2.00
3	BRAGG	2252.94	0.00	124.00	0.00	0.00	0.00	0.00	70.25	1.75
13	IMPROVED PELICAN	2023.41	0.00	131.00	0.00	0.00	0.00	0.00	156.00	3.25
16	ESSEX	1934.96	0.00	116.50	0.00	0.00	0.00	0.00	45.75	1.00
8	BOSSLER	1922.16	0.00	117.75	0.00	0.00	0.00	0.00	75.25	1.75
1	CALLAND	1905.35	0.00	87.00	0.00	0.00	0.00	0.00	82.75	2.00
2	WOODWORTH	1845.77	0.00	90.00	0.00	0.00	0.00	0.00	60.75	1.50
6	PICKETT 71	1689.71	0.00	113.00	0.00	0.00	0.00	0.00	48.00	1.25
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		2512.61	0.00	107.14	0.00	0.00	0.00	0.00	74.77	1.81
COEFFICIENT OF VARIATION		167.13	0.00	1.65	0.00	0.00	0.00	0.00	4.95	0.22
5% LSD VARIETY MEANS (*****=NS)		13.30%	0.00%	3.08%	0.00%	0.00%	0.00%	0.00%	13.25%	24.50%
		476.05	0.00	4.70	0.00	0.00	0.00	0.00	14.11	0.63
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.00	0.12	0.00	0.00	0.00	0.00	0.03	0.18
DAYS TO FLOWER		0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.12	0.00	1.00	0.00	0.00	0.00	0.00	0.19	0.07
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	0.03	0.00	0.19	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.18	0.00	0.07	0.00	0.00	0.00	0.00	0.79++	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
PLANTS HARVEST		0.28+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		-0.11	0.00	-0.27+	0.00	0.00	0.00	0.00	-0.36++	-0.00
100 SEED WEIGHT		0.48++	0.00	0.41++	0.00	0.00	0.00	0.00	0.59++	0.46++
QUALITY OF SEED		-0.41++	0.00	-0.28+	0.00	0.00	0.00	0.00	-0.22	-0.18
			0.00	0.14	0.00	0.00	0.00	0.00	-0.32+	-0.29+

TABLE 156 EXPERIMENT 60 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	RANSOM	1.00	227.00	27.00	18.68	2.25	39.7	26.7
11	COBB	1.00	201.25	34.90	14.75	1.50	40.6	23.8
12	DAVIS	1.00	281.00	25.83	18.93	1.25	42.2	23.2
7	CUTLER 71	1.00	236.75	24.90	18.38	1.00	44.9	21.8
9	WILLIAMS	1.00	233.25	23.63	19.33	1.00	43.6	23.3
14	FORREST	1.00	251.75	31.80	12.23	3.00	42.7	22.5
15	COLUMBUS	1.00	211.25	25.45	16.13	1.00	45.7	21.9
10	CLARK 63	1.00	220.50	22.18	17.95	1.50	43.6	23.7
5	HILL	1.00	250.00	26.40	13.65	1.75	43.0	22.7
3	BRAGG	1.00	254.00	31.23	14.58	3.50	43.5	23.5
13	IMPROVED PELICAN	1.00	160.50	109.88	13.18	1.50	44.3	21.8
16	ESSEX	1.00	233.00	49.40	15.33	5.00	44.6	23.7
8	BOSSIER	1.00	166.00	36.10	13.10	2.75	45.0	21.2
1	CALLAND	1.00	237.25	20.20	14.95	4.75	43.8	22.3
2	WOODWORTH	1.00	201.25	21.83	16.70	2.25	42.6	25.3
6	PICKETT 71	1.00	216.00	28.80	13.35	3.25	41.6	23.8
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	226.30	33.72	15.70	2.33		
COEFFICIENT OF VARIATION		0.00	10.62	10.44	0.56	0.29		
5% LSD VARIETY MEANS (*****=NS)		0.00	9.39%	61.95%	7.12%	24.76%		
		0.00	30.26	29.75	1.59	0.82		
C O R R E L A T I O N S								
			(+ - PROB=.05			++ - PROB=.01)		
YIELD	KG/HA	0.00	0.28+	-0.11	0.48++	-0.41++		
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00		
DAYS TO MATURITY		0.00	-0.27+	0.41++	-0.28+	0.14		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT		0.00	0.00	0.00	0.00	0.00		
HEIGHT		0.00	-0.38++	0.59++	-0.22	-0.32+		
LODGING		0.00	-0.36++	0.46++	-0.18	-0.29+		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS		0.00	1.00	-0.42++	0.31+	0.02		
HARVEST		0.00	-0.42++	1.00	-0.36++	-0.02		
PODS PER PLANT		0.00	0.31+	-0.36++	1.00	-0.38++		
100 SEED WEIGHT		0.00	0.02	-0.02	-0.38++	1.00		
QUALITY OF SEED		0.00						

TABLE 157 EXPERIMENT 38 YEAR 1976

REGION - MESOAMERICA
 SITE - SAN CRISTOBAL
 LATITUDE - 18 DEG. 30 MIN. N
 COOPERATORS - J. DIAZ, M. ROSARIO
 DATE PLANTED - MAY 4, 1976
 SOIL TYPE - CLAY, PH 7.8
 NUMBER OF IRRIGATIONS - 3

COUNTRY - DOMINICAN REPUBLIC
 ELEVATION - 43 M
 LONGITUDE - 70 DEG. W
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	FORREST	2128.34	27.25	92.25	88.25	148.00	0.85	2.45	51.75	1.00
15	COLUMBUS	2093.34	22.00	86.50	82.75	154.00	0.27	2.69	67.75	1.00
1	CALLAND	2069.58	22.00	89.25	75.25	162.25	0.31	2.60	64.25	1.25
9	WILLIAMS	1832.87	22.00	78.00	127.25	150.75	0.44	2.33	59.25	1.00
12	DAVIS	1714.93	29.25	95.50	73.00	110.75	0.80	2.00	55.25	1.00
6	PICKETT 71	1655.75	29.00	99.00	88.75	69.00	1.20	2.08	34.75	1.00
5	HILL	1608.24	29.50	90.00	70.00	88.50	0.75	1.78	51.25	1.00
10	CLARK 63	1602.40	22.00	82.50	110.75	134.00	0.43	2.46	61.75	1.00
7	CUTLER 71	1549.48	22.00	80.50	124.75	143.50	0.78	2.55	59.50	1.00
13	IMPROVED PELICAN	1238.58	43.50	126.50	60.75	133.50	0.72	1.80	99.75	3.00
4	RANSOM	1153.56	29.00	104.00	76.25	111.75	0.80	1.55	41.75	1.00
2	WOODWORTH	1123.56	22.00	78.75	75.75	82.75	0.34	1.89	48.00	1.00
8	BOSSIER	968.94	29.00	121.25	103.75	117.75	1.05	1.95	51.50	1.00
3	BRAGG	851.84	29.00	114.75	79.50	155.25	0.77	2.30	49.50	1.00
11	COBB	626.79	29.00	119.00	76.00	108.00	0.90	1.90	50.50	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LST VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	-0.04	-0.38++	0.11	0.29+	-0.24	0.36++	0.08	0.06
DAYS TO FLOWER		-0.04	1.00	0.61++	-0.29+	-0.13	0.28+	-0.28+	0.31+	0.71++
DAYS TO MATURITY		-0.38++	0.61++	1.00	-0.22	-0.04	0.34++	-0.28+	0.18	0.41++
NODULE NUMBER 1		0.11	-0.29+	-0.22	1.00	0.20	0.50++	0.20	-0.03	-0.19
NODULE NUMBER 2		0.29+	-0.13	-0.04	0.20	1.00	-0.14	0.68++	0.21+	0.05
NODULE WEIGHT 1		-0.24	0.28+	0.34++	0.50++	-0.14	1.00	-0.16	-0.22	-0.03
NODULE WEIGHT 2		0.36++	-0.28+	-0.28+	0.20	0.68++	-0.16	1.00	0.07	-0.11
PLANT HEIGHT		0.08	0.31+	0.18	-0.03	0.27+	-0.22	0.07	1.00	0.73++
LODGING		0.06	0.71++	0.41++	-0.19	0.05	-0.03	-0.11	0.73++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.24	-0.09	-0.31+	-0.09	-0.10	-0.19	-0.08	-0.15	-0.20
PLANTS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER 100 SEED		-0.07	-0.34++	-0.12	0.31+	0.18	-0.14	0.08	0.03	-0.10
QUALITY OF SEED		-0.41++	0.35++	0.57++	-0.03	0.04	0.08	-0.16	0.31+	0.36++

TABLE 157 EXPERIMENT 38 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	FORREST	0.00	307.25	0.00	12.63	1.75	42.3	22.3
15	COLUMBUS	0.00	269.25	0.00	14.93	1.50	44.6	22.2
1	CALLAND	0.00	325.00	0.00	18.40	2.00	43.3	22.3
9	WILLIAMS	0.00	302.00	0.00	17.48	1.75	45.3	22.3
12	DAVIS	0.00	332.75	0.00	13.83	1.00	42.4	22.3
6	PICKETT 71	0.00	265.50	0.00	13.95	1.25	42.6	22.9
5	HILL	0.00	357.00	0.00	14.18	1.50	42.1	22.5
10	CLARK 63	0.00	313.50	0.00	18.00	2.50	46.8	22.6
7	CUTLER 71	0.00	279.00	0.00	19.98	2.00	45.7	22.8
13	IMPROVED PELICAN	0.00	269.75	0.00	14.45	4.00	42.8	23.5
4	RANSON	0.00	303.00	0.00	15.58	1.00	42.8	22.7
2	WOODWORTH	0.00	305.25	0.00	18.00	2.50	41.5	24.3
8	BOSSIER	0.00	202.75	0.00	16.38	3.75	44.7	23.0
3	BRAGG	0.00	292.75	0.00	15.38	3.75	44.6	23.2
11	COBB	0.00	297.25	0.00	18.23	3.75	41.3	24.7
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	298.80	0.00	16.09	2.27		
COEFFICIENT OF VARIATION		0.00%	8.74	0.00	0.68	0.40		
5% ISC VARIETY MEANS (*****=NS)		0.00	5.85%	0.00%	8.42%	35.22%		
			24.94	0.00	1.93	1.14		
C O R R E L A T I O N S								
			(+ - PROB=.05		++ - PROB=.01)			
YIELD	KG/HA	0.00	0.24	0.00	-0.07	-0.41++		
DAYS TO FLOWER		0.00	-0.09	0.00	-0.34++	0.35++		
DAYS TO MATURITY		0.00	-0.31+	0.00	-0.12	0.57++		
NODULE NUMBER 1		0.00	-0.09	0.00	0.31+	-0.03		
NODULE NUMBER 2		0.00	-0.10	0.00	0.18	0.04		
NODULE WEIGHT 1		0.00	-0.19	0.00	-0.14	0.08		
NODULE WEIGHT 2		0.00	-0.08	0.00	0.08	-0.16		
PLANT HEIGHT		0.00	-0.15	0.00	0.03	0.31+		
LODGING		0.00	-0.20	0.00	-0.10	0.36++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	0.00	-0.01	-0.28+		
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00		
100 SEED WEIGHT		0.00	-0.01	0.00	1.00	0.30+		
QUALITY OF SEED		0.00	-0.28+	0.00	0.30+	1.00		

TABLE 158 EXPERIMENT 22 YEAR 1976

REGION - Mesoamerica COUNTRY - JAMAICA
 SITE - CAYMANAS ELEVATION - 2 M
 LATITUDE - 18 DEG. N LONGITUDE - 77 DEG. E
 COOPERATOR - HAROLD R. WILSON DATE HARVESTED - SEPTEMBER, 1976
 DATE PLANTED - MAY 14, 1976
 SOIL TYPE - SAND 22%, SILT 22%, CLAY 28%, PH 6.8
 AMOUNT OF MOISTURE - 336 MM
 NUMBER OF IRRIGATIONS - 7 (320 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	DAVIS	2211.33	32.25	84.75	85.00	102.00	0.00	0.00	40.00	1.00
1	CALLAND	2096.01	29.00	85.50	108.00	87.25	0.00	0.00	43.00	2.25
15	FORREST	2031.61	28.75	81.50	74.50	139.75	0.00	0.00	34.25	1.25
16	COLUMBUS	1922.22	30.50	82.50	108.75	133.75	0.00	0.00	39.75	1.25
5	HILL	1867.52	30.50	81.50	52.75	77.75	0.00	0.00	28.00	1.25
7	CUTLER 71	1828.45	31.00	86.00	50.25	73.00	0.00	0.00	39.25	2.00
9	BOSSIER	1794.13	30.75	92.00	59.50	104.25	0.00	0.00	28.00	1.00
4	RANSON	1789.45	30.00	81.75	140.75	183.75	0.00	0.00	30.00	1.00
12	COBB	1725.45	31.75	86.00	43.75	109.75	0.00	0.00	37.75	1.00
10	WILLIAMS	1672.17	30.50	82.75	131.50	64.75	0.00	0.00	44.00	1.50
11	CLARK 63	1570.45	30.75	81.00	67.00	66.25	0.00	0.00	37.25	2.50
3	BRAGG	1563.02	29.25	81.00	63.75	115.00	0.00	0.00	33.75	1.25
6	PICKETT 71	1400.83	31.25	93.25	66.75	84.75	0.00	0.00	21.00	1.00
14	IMPROVED PELICAN	1337.62	40.00	111.00	39.25	86.25	0.00	0.00	85.25	2.75
2	WOODWORTH	1070.50	28.75	83.50	41.25	275.50	0.00	0.00	36.75	1.50
8	JUPITER	436.69	62.75	96.00	60.25	66.25	0.00	0.00	66.25	1.00
	GRAND MEAN	1644.84	32.98	86.88	74.56	95.00	0.00	0.00	40.27	1.47
	STANDARD ERROR OF A VARIETY MEAN	145.32	0.59	0.75	25.95	22.01	0.00	0.00	3.21	0.22
	COEFFICIENT OF VARIATION	17.67%	3.58%	1.72%	69.61%	46.34%	0.00%	0.00%	15.94%	29.48%
	5% LSD VARIETY MEANS (*****=NS)	413.92	1.68	2.12	*****	62.70	0.00	0.00	9.14	0.62

C O R R E L A T I O N S
 (+ - PROB=.05 +- - PROB=.01)

YIELD	KG/HA	1.00	-0.64++	-0.37++	0.15	0.32++	0.00	0.00	-0.35++	0.03
DAYS TO FLOWER	1.00	-0.64++	1.00	0.54++	-0.12	-0.12	0.00	0.00	0.60++	-0.05
DAYS TO MATURITY	-0.37++	0.54++	1.00	1.00	-0.22	-0.13	0.00	0.00	0.69++	-0.27+
NODULE NUMBER 1	0.15	-0.12	-0.22	-0.22	1.00	0.41++	0.00	0.00	-0.11	-0.22
NODULE NUMBER 2	0.32++	-0.12	-0.13	-0.13	0.41++	1.00	0.00	0.00	-0.12	-0.24
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	-0.35++	0.60++	0.60++	0.69++	-0.11	-0.12	0.00	0.00	1.00	0.39++
LODGING	0.03	-0.05	-0.05	0.27+	-0.22	-0.24	0.00	0.00	0.39++	1.00
SHATTER	-0.07	-0.22	-0.21	-0.21	0.04	-0.29+	0.00	0.00	-0.16	0.04
HARVEST	0.34++	-0.33++	-0.48++	-0.48++	0.26+	0.18	0.00	0.00	-0.30+	-0.07
PLANTS PER	0.31+	-0.22	0.41++	0.41++	-0.14	0.21	0.00	0.00	0.31+	0.23
100 SEED	0.39++	-0.59++	-0.59++	-0.59++	0.19	-0.16	0.00	0.00	-0.46++	0.20
QUALITY OF SEED	-0.46++	0.47++	0.47++	0.47++	-0.11	-0.09	0.00	0.00	0.41++	0.06

TABLE 158 EXPERIMENT 22 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
13	DAVIS	1.00	215.50	50.65	23.50	2.00	42.4	22.4
1	CALLAND	1.25	227.50	30.92	27.25	2.50	41.5	23.0
15	FOREST	1.50	196.00	46.55	22.25	2.25	42.2	21.9
16	COLUMBUS	1.00	191.25	42.87	24.00	2.00	41.9	24.4
5	HILL	1.50	250.50	36.78	24.50	1.50	42.9	21.9
7	CUTLER 71	1.25	233.75	28.25	28.00	2.25	42.4	23.4
9	BOSSIER	1.00	168.00	43.70	15.75	2.25	43.4	22.9
4	RANSOM	1.00	232.25	33.97	19.50	3.50	42.0	23.5
12	COBB	1.00	216.50	49.82	13.00	2.25	39.9	23.7
10	WILLIAMS	1.25	214.00	25.90	27.50	1.50	42.7	23.2
11	CLARK 63	1.50	194.75	32.40	27.00	2.00	40.5	24.9
3	BAGG	1.00	246.25	43.65	15.50	2.50	43.5	22.3
6	PICKETT 71	1.25	162.00	36.23	23.00	2.50	42.6	23.4
14	IMPROVED PELICAN	1.00	136.25	83.07	10.50	3.75	42.5	23.5
2	WOODWORTH	2.25	181.50	21.03	26.25	3.00	40.6	24.8
8	JUPITER	1.00	162.75	9.25	9.00	4.00	43.6	19.5
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.23	201.80	38.44	21.03	2.48		
COEFFICIENT OF VARIATION		0.21	15.37	3.47	1.01	0.32		
5% LSC VARIETY MEANS (*****=NS)		33.79%	15.23%	18.03%	9.62%	26.12%		
		0.59	43.77	9.87	2.88	0.92		
C O R R E L A T I O N S								
		(+ - PROB=-.05			++ - PROB=-.01)			
YIELD	KG/HA	-0.07	0.34++	0.31+	0.39++	-0.46++		
DAYS TO FLOWER		-0.22	-0.33++	-0.22	-0.59++	0.47++		
DAYS TO MATURITY		-0.21	-0.48++	0.41++	-0.59++	0.47++		
NODULE NUMBER 1		0.04	0.26+	-0.14	0.19	-0.11		
NODULE NUMBER 2		-0.29+	0.18	0.21	-0.16	-0.09		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT	HEIGHT	-0.16	-0.30+	0.31+	-0.46++	0.41++		
LODGING		0.04	-0.07	0.23	0.20	0.06		
SHATTER		1.00	-0.02	-0.20	0.27+	-0.08		
PLANTS	HARVEST	-0.02	1.00	-0.19	0.28+	-0.33++		
PODS PER	PLANT	-0.20	-0.19	1.00	-0.31+	0.01		
100 SEED	WEIGHT	0.27+	0.28+	-0.31+	1.00	-0.43++		
QUALITY	OF SEED	-0.08	-0.33++	0.01	-0.43++	1.00		

TABLE 159 EXPERIMENT 427 YEAR 1976

REGION - MESOAMERICA COUNTRY - MEXICO
 SITE - APATZINGAN ELEVATION - 337 M
 LATITUDE - 19 DEG. N LONGITUDE - 102 DEG. 12 MIN. W
 COOPERATOR - BENITO CAZARES ENRIQUEZ DATE HARVESTED - OCTOBER, 1976
 DATE PLANTED - JULY 6, 1976
 SOIL TYPE - CLAY, PH 8.1
 AMOUNT OF MOISTURE - 554 MM
 NUMBER OF IRRIGATIONS - 2
 LOCAL VARIETY - R.A.D.

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	R.A.D.	3196.47	28.75	80.25	213.25	235.25	1.58	6.03	57.25	1.75
1	JUPITER	2646.36	51.00	104.50	217.25	292.25	6.68	9.25	85.00	1.00
7	DAVIS	2621.36	31.00	89.50	172.75	168.00	1.75	7.00	31.25	1.00
2	HAMPTON 266 A	2604.69	28.25	86.75	211.25	127.50	2.00	5.30	30.00	1.00
5	COBB	2500.50	30.25	88.75	107.00	176.25	1.48	6.32	46.00	1.00
4	IMPROVED PELICAN	2296.29	34.00	90.75	210.50	329.50	0.70	5.18	81.25	1.00
10	COLUMBUS	2094.17	23.00	83.50	99.00	169.00	1.20	5.00	54.25	1.00
8	TRACY	2067.08	24.25	80.00	119.25	192.50	1.53	5.42	37.00	1.00
6	BOSSIER	2000.40	28.00	85.25	133.00	259.25	1.20	7.88	24.25	1.00
14	CALLAND	1904.55	23.00	81.50	110.25	164.00	1.75	5.87	51.00	1.00
9	FORREST	1800.36	28.75	87.00	107.25	200.50	1.00	6.10	27.25	1.25
3	HARDEE	1785.77	32.75	91.00	181.50	298.50	1.65	8.85	33.00	1.00
11	CLARK 63	1735.76	23.00	83.00	102.50	117.50	0.88	2.90	45.00	1.00
13	WILLIAMS	1598.24	26.25	82.50	80.50	152.25	0.65	3.65	42.75	1.25
12	WOODWORTH	670.97	29.00	83.75	50.25	106.75	0.40	2.45	28.25	1.00
GRAND MEAN		2101.53	29.42	86.53	141.03	199.27	1.63	5.81	44.90	1.08
STANDARD ERROR OF A VARIETY MEAN		260.67	0.88	1.75	45.62	56.18	0.72	1.24	3.21	0.15
COEFFICIENT OF VARIATION		24.81%	5.99%	4.04%	64.69%	56.38%	88.88%	42.81%	14.30%	28.25%
5% LSD VARIETY MEANS (*****=NS)		743.96	2.51	4.98	*****	*****	2.07	3.55	9.16	*****
CORRELATIONS (+ - PROB=-.05 ** - PROB=-.01)										
YIELD	KG/HA	1.00	0.20	0.07	0.51**	0.39**	0.34**	0.48**	0.43**	0.16
DAYS TO FLOWER		0.20	1.00	0.83**	0.27*	0.30*	0.59**	0.36**	0.48**	-0.09
DAYS TO MATURITY		0.07	0.83**	1.00	0.14	0.24	0.38**	0.38**	0.29*	-0.23
NODULE NUMBER 1		0.51**	0.27*	0.14	1.00	0.73**	0.43**	0.61**	0.33*	0.08
NODULE NUMBER 2		0.39**	0.20*	0.24	0.73**	1.00	0.28*	0.78**	0.30*	0.02
NODULE WEIGHT 1		0.34**	0.59**	0.38**	0.43**	0.28*	1.00	0.46**	0.46**	-0.04
NODULE WEIGHT 2		0.48**	0.36**	0.38**	0.61**	0.78**	0.46**	1.00	0.13	-0.05
PLANT HEIGHT		0.43**	0.48**	0.29*	0.33*	0.30*	0.46**	0.13	1.00	0.11
LODGING		0.16	-0.09	-0.23	0.08	0.02	-0.04	-0.05	0.05	1.00
SHATTER		-0.32*	-0.53**	-0.57**	-0.22	-0.22	-0.31*	-0.34**	-0.24	0.07
HARVEST		0.52**	0.05	-0.19	0.27*	0.07	0.22	0.06	0.36**	0.21
PODS PER PLANT		0.51**	0.38**	0.17	0.22	0.20	0.42**	0.26*	0.48**	0.15
100 SEED WEIGHT		0.13	-0.21	-0.20	-0.01	-0.17	0.05	0.06	-0.32*	-0.03
QUALITY OF SEED		-0.66**	-0.43**	-0.37**	-0.45**	-0.34**	-0.41**	-0.48**	-0.49**	-0.01

TABLE 159 EXPERIMENT 427 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
15	R-A-D.	2.25	182.25	38.32	16.75	2.00	38.4	23.2
1	JUPITER	1.00	141.75	46.42	16.88	1.25	39.8	24.1
7	DAVIS	2.75	127.50	25.13	16.60	1.50	39.8	24.4
2	HAMPTON 266 A	2.00	118.75	26.75	20.13	2.25	--	--
5	COBB	1.50	114.75	33.57	17.00	2.00	37.7	25.7
4	IMPROVED PELICAN	2.25	115.25	24.17	11.25	2.00	40.2	24.0
10	COLUMBUS	2.75	137.25	26.78	16.30	2.50	40.1	23.5
8	TRACY	4.25	132.50	29.75	19.28	3.50	38.9	21.4
6	BOSSIER	2.75	122.00	26.45	17.73	2.75	39.8	24.5
14	CALLAND	3.75	123.50	35.07	18.28	3.25	40.6	23.4
9	FORREST	2.00	125.50	25.23	14.95	4.25	--	--
3	HARDEE	1.50	91.25	25.12	16.08	2.75	--	--
11	CLARK 63	2.00	119.25	20.20	15.98	2.75	36.9	25.8
13	WILLIAMS	3.00	94.25	22.75	18.33	3.25	--	--
12	WOODWORTH	4.00	109.50	20.55	16.08	3.75	--	--
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		2.52	123.68	28.42	16.77	2.65		
COEFFICIENT OF VARIATION		25.13%	9.57	3.86	0.69	0.36		
5% LSD VARIETY MEANS (*****=NS)		0.90	15.48%	27.15%	8.20%	27.37%		
			27.33	11.01	1.96	1.04		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.32+	0.52++	0.51++	0.13	-0.66++		
DAYS TO FLOWER		-0.53++	0.05	0.38++	-0.21	-0.43++		
DAYS TO MATURITY		-0.57++	-0.19	0.17	-0.20	-0.37++		
NODULE NUMBER 1		-0.22	0.27+	0.22	-0.01	-0.45++		
NODULE NUMBER 2		-0.22	0.07	0.20	-0.17	-0.34++		
NODULE WEIGHT 1		-0.31+	0.22	0.42++	0.05	-0.41++		
NODULE WEIGHT 2		-0.34++	0.06	0.26+	0.06	-0.48++		
PLANT	HEIGHT	-0.24	0.36++	0.48++	-0.32+	-0.49++		
	LODGING	0.07	0.21	0.15	-0.03	-0.01		
	SHATTER	1.00	0.01	-0.15	0.23	0.40++		
PLANTS	HARVEST	0.01	1.00	0.51++	0.03	-0.25+		
PODS PER	PLANT	-0.15	0.51++	1.00	0.10	-0.36++		
100 SEED	WEIGHT	0.23	0.03	0.10	1.00	0.02		
QUALITY	OF SEED	0.40++	-0.25+	-0.36++	0.02	1.00		

TABLE 160 EXPERIMENT 296 YEAR 1976

REGION - MESOAMERICA
 SITE - APATZINGAN
 LATITUDE - 19 DEG. N
 COOPERATOR - BENITO CAZARES ENRIQUEZ
 DATE PLANTED - JULY 20, 1976
 SOIL TYPE - CLAY, PH 8.1
 AMOUNT OF MOISTURE - 490 MM
 NUMBER OF IRRIGATIONS - 2

COUNTRY - MEXICO
 ELEVATION - 337 M
 LONGITUDE - 102 DEG. 12 MIN. W
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	JUPITER	3156.88	38.00	95.75	168.00	222.00	1.78	5.68	83.25	1.00
1	CALLAND	2267.12	19.25	61.75	34.75	118.50	0.23	3.95	49.50	1.00
13	DAVIS	2142.09	28.00	63.75	57.00	86.50	0.47	3.90	30.50	1.00
16	COLUMBUS	1969.14	21.00	62.00	44.75	104.00	0.38	3.30	45.50	1.00
4	RANSOM	1960.81	24.50	65.00	40.25	181.25	0.33	4.78	23.00	1.00
12	COBB	1900.38	28.00	63.25	47.25	55.25	0.50	3.13	39.25	1.00
11	CLARK 63	1896.21	20.50	61.25	22.00	96.00	0.28	2.58	46.50	1.00
3	BRAGG	1879.54	23.50	63.25	28.75	187.50	0.28	5.12	29.75	1.00
14	IMPROVED PELICAN	1650.33	38.00	67.00	123.75	90.00	1.20	2.10	80.50	1.00
9	BOSSIER	1612.82	23.75	65.25	34.75	117.25	0.28	2.95	20.75	1.00
5	HILL	1550.31	28.75	61.75	30.00	71.25	0.25	1.63	29.00	1.00
7	CUTLER 71	1473.21	20.25	62.00	27.00	83.75	0.25	2.88	40.00	1.00
6	PICKETT 71	1400.28	24.50	68.25	14.00	61.75	0.20	2.13	17.50	1.00
2	WOODWORTH	1316.93	19.75	60.75	9.50	73.00	0.13	2.65	37.75	1.00
10	WILLIAMS	1288.17	20.50	63.00	34.00	108.50	0.25	3.23	40.75	1.00
15	FORREST	1258.58	25.00	63.75	0.50	87.50	0.05	2.05	23.25	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSL VARIETY MEANS (*****=NS)										
(+ - PROB=.05 ++ - PROB=.01) (+ - PROB=.05 ++ - PROB=.01)										
C O R R E L A T I O N S										
YIELD	KG/HA	1.00	0.32+	0.10	0.56++	0.57++	0.51++	0.53++	0.46++	0.00
DAYS TO FLOWER	0.32+	1.00	0.21	0.21	0.55++	0.11	0.61++	0.05	0.55++	0.00
DAYS TO MATURITY	0.10	0.21	1.00	0.00	0.05	0.05	-0.02	0.03	0.12	0.00
NODULE NUMBER 1	0.56++	0.55++	0.55++	0.00	1.00	0.50++	0.74++	0.32++	0.58++	0.00
NODULE NUMBER 2	0.57++	0.11	0.05	0.05	0.50++	1.00	0.42++	0.82++	0.22	0.00
NODULE WEIGHT 1	0.51++	0.61++	-0.02	0.02	0.74++	0.42++	1.00	0.42++	0.64++	0.00
NODULE WEIGHT 2	0.53++	0.05	0.03	0.03	0.32++	0.82++	0.42++	1.00	0.20	0.00
PLANT HEIGHT	0.46++	0.12	0.12	0.00	0.58++	0.22	0.64++	0.20	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	-0.29+	-0.34++	-0.34++	-0.10	-0.24	-0.33++	-0.25	-0.28+	-0.13	0.00
PLANTS HARVEST	0.24	0.00	0.00	-0.10	-0.06	-0.01	-0.05	0.01	-0.05	0.00
PODS PER PLANT	0.57++	0.43++	0.11	0.11	0.55++	0.45++	0.50++	0.36++	0.51++	0.00
100 SEED WEIGHT	0.48++	-0.30+	-0.03	-0.03	0.04	0.35++	0.41++	0.04	-0.05	0.00
QUALITY OF SEED	-0.39++	-0.44++	-0.12	-0.12	-0.44++	-0.09	-0.45++	-0.04	-0.37++	0.00

TABLE 160 EXPERIMENT 296 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	JUPITER	1.00	145.50	40.40	17.05	1.00	40.8	23.9
1	CALLAND	4.50	156.50	27.42	17.53	3.25	40.7	22.4
13	DAVIS	2.25	158.00	24.58	15.03	2.00	41.4	23.0
16	COLUMBUS	1.75	154.00	25.70	15.13	2.25	42.0	23.4
4	RANSOM	1.25	146.50	24.35	16.38	2.00	37.9	26.4
12	COBB	1.00	146.25	23.48	13.43	2.00	37.4	24.9
11	CLARK 63	1.25	147.75	23.25	15.98	2.75	40.1	25.0
3	BRAGG	1.00	146.75	26.13	15.13	4.50	42.6	22.5
14	IMPROVED PELICAN	1.75	127.25	28.88	8.83	1.75	40.3	23.0
9	BOSSIER	1.00	134.25	22.68	14.40	1.75	43.9	22.9
5	HILL	3.50	188.75	23.83	12.60	2.75	36.7	24.1
7	CUTLER 71	4.00	126.00	25.20	14.08	3.00	38.5	23.8
6	PICKETT 71	4.00	126.50	22.00	14.85	2.75	40.8	23.7
2	WOODWORTH	4.50	135.25	23.13	12.30	2.75	35.3	26.2
10	WILLIAMS	2.00	140.00	20.85	16.78	2.50	39.5	24.1
15	FORREST	1.50	141.75	23.95	10.80	4.25	39.5	23.6

GRAND MEAN 2.27 145.06 25.36 14.39 2.58
 STANDARD ERROR OF A VARIETY MEAN 0.24 8.51 2.83 0.82 0.33
 COEFFICIENT OF VARIATION 21.15% 11.73% 22.28% 11.36% 25.34%
 5% LSD VARIETY MEANS (*****=NS) 0.68 24.24 8.05 2.33 0.93

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

YIELD KG/HA	-0.29+	0.24	0.57++	0.48++	-0.39++
DAYS TO FLOWER	-0.34++	0.00	0.43++	-0.30+	-0.44++
DAYS TO MATURITY	-0.10	-0.10	0.11	-0.03	-0.12
NODULE NUMBER 1	-0.24	-0.06	0.55++	0.04	-0.44++
NODULE NUMBER 2	-0.33++	-0.01	0.45++	0.35++	-0.09
NODULE WEIGHT 1	-0.25	-0.05	0.50++	0.04	-0.45++
NODULE WEIGHT 2	-0.28+	0.01	0.36++	0.41++	-0.04
PLANT HEIGHT	-0.13	-0.05	0.51++	-0.05	-0.37++
LODGING	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	-0.01	-0.21	-0.08	0.22
PLANTS HARVEST	-0.01	1.00	0.02	0.17	0.10
PODS PER PLANT	-0.21	0.02	1.00	0.14	-0.25+
100 SEED WEIGHT	-0.08	0.17	0.14	1.00	-0.09
QUALITY OF SEED	0.22	0.10	-0.25+	-0.09	1.00

TABLE 161 EXPERIMENT 297 YEAR 1976

REGION - MESOAMERICA COUNTRY - MEXICO
 SITE - TEPALCATEPEC
 COOPERATOR - BENITO CAZARES ENRIQUEZ
 DATE PLANTED - JULY 24, 1976 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - CLAY
 AMOUNT OF MOISTURE - 447 MM
 LOCAL VARIETIES - CAJEME, TROPICANA

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE 2 WEIGHT	PLANT HEIGHT	LODGING
7	JUPITER	3594.47	39.00	99.00	4.00	3.50	0.18	0.10	0.10	69.00	1.00
16	CAJEME	2719.29	26.00	90.25	2.25	6.75	0.20	0.25	0.25	46.75	1.00
15	COLUMBUS	2650.53	21.25	82.75	24.25	25.75	0.23	0.33	0.33	40.75	1.00
11	COBB	2646.36	24.50	91.50	2.50	4.75	0.10	0.10	0.10	31.50	1.00
14	FORREST	2642.19	24.00	86.75	3.50	8.75	0.03	0.23	0.23	35.50	1.00
1	CALLAND	2535.92	18.50	82.50	28.25	5.00	0.30	0.18	0.18	40.25	1.00
6	CUTLER 71	2469.24	18.50	78.75	0.00	14.25	0.00	0.30	0.30	42.00	1.00
12	DAVIS	2400.48	26.00	91.50	7.50	8.75	0.15	0.23	0.23	38.25	1.00
8	BOSSLER	2375.47	22.00	89.00	13.75	4.50	0.13	0.15	0.15	28.25	1.00
13	IMPROVED PELICAN	2346.30	39.00	84.75	1.50	4.50	0.15	0.60	0.60	73.50	1.00
9	WILLIAMS	2196.27	18.00	79.75	11.50	1.50	0.13	0.05	0.05	45.00	1.00
17	TROPICANA	2083.75	42.00	85.00	5.00	3.00	0.25	0.13	0.13	81.25	2.50
3	RANSOM	2046.24	17.00	89.50	11.50	1.50	0.20	0.05	0.05	25.50	1.00
4	HILL	2029.57	26.00	78.75	2.75	5.50	0.03	0.13	0.13	30.25	1.00
10	CLARK 63	1996.23	18.00	80.25	4.50	0.75	0.08	0.08	0.08	38.50	1.00
5	PICKETT 71	1810.78	21.00	84.50	6.00	19.50	0.15	0.52	0.52	26.50	1.00
2	WOODWORTH	1789.94	18.00	78.75	18.50	13.00	0.23	0.40	0.40	35.00	1.00
GRAND MEAN											
2372.53											
STANDARD ERROR OF A VARIETY MEAN											
307.56											
COEFFICIENT OF VARIATION											
25.93%											
5% LSD VARIETY MEANS (*****=NS)											
874.56											
CORRELATIONS											
(+ - PROB=.05 +- - PROB=.01)											
YIELD	KG/HA	1.00	0.17	0.50++	0.22	0.16	0.28+	0.14	0.14	0.32++	-0.04
DAYS TO FLOWER	0.17	1.00	0.35++	-0.33++	-0.33++	-0.13	0.03	0.02	0.02	0.76++	0.51++
DAYS TO MATURITY	0.50++	0.35++	1.00	0.05	0.05	-0.05	0.20	-0.03	-0.03	0.19	-0.02
NODULE NUMBER 1	0.22	-0.33++	0.05	1.00	0.33++	0.33++	0.66++	0.22	0.22	-0.03	-0.04
NODULE NUMBER 2	0.16	-0.13	-0.05	0.33++	1.00	0.24	0.24	0.80++	0.80++	-0.05	-0.06
NODULE WEIGHT 1	0.28+	0.03	0.20	0.66++	0.33++	0.24	1.00	0.26+	0.26+	0.24	0.25+
NODULE WEIGHT 2	0.14	0.02	-0.03	0.22	0.80++	0.80++	0.26+	1.00	1.00	0.08	-0.06
PLANT	HEIGHT	0.32++	0.76++	0.19	-0.03	-0.05	0.24	0.08	0.08	1.00	0.54++
LODGING	SHATTER	-0.04	0.51++	-0.02	-0.04	-0.06	0.25+	-0.06	-0.06	0.54++	1.00
PLANTS	HARVEST	-0.50++	0.15	-0.48++	-0.18	-0.18	-0.13	-0.19	-0.19	0.15	0.34++
PODS PER	PLANT,	0.33++	0.12	0.28+	0.24	0.13	0.31+	0.13	0.13	0.14	0.26+
100 SEED	WEIGHT	0.54++	0.42++	0.44++	-0.21	0.02	0.01	0.12	0.12	0.43++	0.00
QUALITY	OF SEED	0.23	-0.62++	0.01	0.34++	0.13	0.18	0.03	0.03	-0.44++	-0.49++
		-0.44++	-0.64++	-0.45++	0.20	-0.02	-0.05	-0.06	-0.06	-0.52++	-0.29+

TABLE 161 EXPERIMENT 297 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
7	JUPITER	1.00	130.50	48.67	16.75	1.00
16	CAJEME	1.50	96.50	42.12	18.35	3.00
15	COLUMBUS	1.50	128.00	24.50	17.40	3.25
11	COBB	1.50	123.00	27.92	15.48	2.75
14	FORREST	1.00	131.50	32.30	15.65	3.75
1	CALLAND	1.75	116.50	24.90	20.63	3.75
6	CUTLER 71	2.00	104.25	27.22	19.78	3.75
12	DAVIS	1.50	143.00	27.05	16.18	2.50
8	BOSSIER	1.00	115.75	27.97	18.18	3.00
13	IMPROVED PELICAN	1.75	112.00	34.80	12.33	1.75
9	WILLIAMS	1.50	113.50	29.55	18.60	3.25
17	TROPICANA	2.75	142.50	28.40	10.13	1.75
3	RANSOM	1.00	134.75	22.92	18.45	3.75
4	HILL	2.00	122.75	23.63	16.50	3.50
10	CLARK 63	1.50	109.25	22.70	16.30	3.25
5	PICKETT 71	1.50	137.00	24.45	16.68	3.50
2	WOODWORTH	2.25	114.25	25.47	17.30	5.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.59	122.06	29.09	16.74	3.09
COEFFICIENT OF VARIATION		0.35	9.27	3.43	0.93	0.43
5% LSD VARIETY MEANS (*****=NS)		44.19% *****	15.20% 26.37	23.61% 9.77	11.06% 2.63	27.99% 1.23
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	-0.50++	0.33++	0.54++	0.23	-0.44++
DAYS TO FLOWER		0.15	0.12	0.42++	-0.62++	-0.64++
DAYS TO MATURITY		-0.48++	0.28+	0.44++	0.01	-0.45++
NODULE NUMBER 1		-0.18	0.24	-0.21	0.34++	0.20
NODULE NUMBER 2		-0.18	0.13	0.02	0.13	-0.02
NODULE WEIGHT 1		-0.13	0.31+	0.01	0.18	-0.05
NODULE WEIGHT 2		-0.19	0.13	0.12	0.03	-0.06
PLANT HEIGHT		0.15	0.14	0.43++	-0.44++	-0.52++
LODGING		0.34++	0.26+	0.00	-0.49++	-0.29+
SHATTER		1.00	-0.17	-0.32++	-0.37++	0.16
HARVEST		-0.17	1.00	0.06	-0.05	-0.19
PLANTS PER PLANT		-0.32++	0.06	1.00	-0.04	-0.45++
100-SEED WEIGHT		-0.37++	-0.05	-0.04	1.00	0.41++
QUALITY OF SEED		0.16	-0.19	-0.45++	0.41++	1.00

TABLE 162 EXPERIMENT 365 YEAR 1976

REGION - MESOAMERICA COUNTRY - NICARAGUA
 SITE - MANAGUA ELEVATION - 60 M
 LATITUDE - 12 DEG. 33 MIN. N LONGITUDE - 86 DEG. 59 MIN. W
 COOPERATOR - MANUEL VANEGAS

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
16	COLUMBUS	2993.52	26.00	90.00	11.00	0.00	0.60	0.00	0.60	0.00	46.00	1.00
10	WILLIAMS	2907.25	26.00	90.00	11.25	0.00	0.57	0.00	0.57	0.00	51.25	1.00
13	DAVIS	2906.00	30.00	93.00	10.25	0.00	0.58	0.00	0.58	0.00	27.50	1.00
11	CLARK 63	2751.38	25.00	90.00	6.25	0.00	0.33	0.00	0.33	0.00	49.50	1.00
3	BRAGG	2722.21	30.00	93.00	9.00	0.00	0.47	0.00	0.47	0.00	36.50	1.00
1	CALLAND	2618.44	26.00	90.00	12.75	0.00	0.67	0.00	0.67	0.00	48.75	1.00
15	FORREST	2528.42	28.00	90.00	12.75	0.00	0.68	0.00	0.68	0.00	27.50	1.00
4	RANSOM	2461.33	30.00	93.00	9.00	0.00	0.50	0.00	0.50	0.00	28.75	1.00
6	PICKETT 71	2368.81	30.00	93.00	4.25	0.00	0.28	0.00	0.28	0.00	19.75	1.00
12	COBB	2252.12	30.00	93.00	0.00	0.00	0.00	0.00	0.00	0.00	19.50	1.00
7	CUTLER 71	2204.61	25.00	90.00	10.75	0.00	0.55	0.00	0.55	0.00	45.00	1.00
2	WOODWORTH	2099.17	26.00	90.00	3.75	0.00	0.18	0.00	0.18	0.00	46.25	1.00
9	BOSSIER	2035.42	26.00	90.00	6.50	0.00	0.38	0.00	0.38	0.00	22.75	1.00
14	IMPROVED PELICAN	2044.16	40.00	93.00	7.75	0.00	0.40	0.00	0.40	0.00	83.25	2.25
5	HILL	1962.06	30.00	93.00	7.25	0.00	0.38	0.00	0.38	0.00	22.75	1.00
8	JUPITER	1171.07	40.00	96.00	6.75	0.00	0.40	0.00	0.40	0.00	57.50	1.00
GRAND MEAN		2379.75	29.25	91.69	8.08	0.00	0.43	0.00	0.43	0.00	39.53	1.08
STANDARD ERROR OF A VARIETY MEAN		282.08	0.00	0.00	2.88	0.00	0.15	0.00	0.15	0.00	3.06	0.06
COEFFICIENT OF VARIATION		23.71%	0.00%	0.00%	71.35%	0.00%	68.33%	0.00%	68.33%	0.00%	15.48%	11.59%
5% ISL VARIETY MEANS (*****=NS)		803.49	0.00	0.00	*****	0.00	*****	0.00	*****	0.00	8.72	0.18
C O R R E L A T I O N S												
(+ - PROB=.05 +- - PROB=.01)												
YIELD	KG/HA	1.00	-0.40++	-0.35++	0.27+	0.00	0.27+	0.00	0.27+	0.00	0.07	-0.09
DAYS TO FLOWER	1.00	-0.40++	1.00	0.84++	-0.11	0.00	-0.09	0.00	-0.09	0.00	0.39++	0.58++
DAYS TO MATURITY	-0.35++	0.84++	0.84++	1.00	-0.19	0.00	-0.16	0.00	-0.16	0.00	-0.02	0.17
NODULE NUMBER 1	0.27+	-0.11	-0.11	-0.19	1.00	0.00	0.99++	0.00	0.99++	0.00	0.18	0.12
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.27+	-0.09	-0.09	-0.16	0.99++	0.00	1.00	0.00	1.00	0.00	0.17	0.10
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.07	0.39++	-0.02	0.18	0.00	0.17	0.00	0.17	0.00	1.00	0.60++
LODGING	SHATTER	-0.09	0.58++	0.17	0.12	0.00	0.10	0.00	0.10	0.00	0.60++	1.00
PLANTS	HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.52++	-0.21	-0.21	-0.08	0.17	0.00	0.13	0.00	0.13	0.00	0.09	-0.15
100 SEED WEIGHT	0.28+	-0.12	-0.12	-0.20	0.84++	0.00	0.81++	0.00	0.81++	0.00	0.08	0.16
QUALITY OF SEED	0.15	-0.53++	-0.16	-0.03	-0.03	0.00	-0.04	0.00	-0.04	0.00	-0.55++	-0.69++
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 162 EXPERIMENT 365 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
16	COLUMBUS	1.00	132.50	13.50	14.38	0.00
10	WILLIAMS	1.00	163.00	13.75	15.13	0.00
13	DAVIS	1.00	173.50	10.25	14.75	0.00
11	CLARK 63	1.00	178.50	6.25	13.75	0.00
3	BRAGG	1.00	149.00	9.00	13.88	0.00
1	CALLAND	1.00	152.00	12.75	14.85	0.00
15	FORREST	1.00	130.00	12.75	13.63	0.00
4	RANSOM	1.00	152.00	9.00	15.58	0.00
6	PICKETT 71	1.00	142.00	4.25	14.60	0.00
12	COBB	1.00	133.50	10.00	16.68	0.00
7	CUTLER 71	1.00	131.50	10.75	15.80	0.00
2	WOODWORTH	1.00	149.00	3.75	14.28	0.00
9	BOSSIER	1.00	83.00	6.50	15.15	0.00
14	IMPROVED PELICAN	1.00	120.00	10.00	10.18	0.00
5	HILL	1.00	127.50	7.25	13.80	0.00
8	JUPITER	1.00	116.25	5.25	13.83	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	139.58	9.06	14.39	0.00
COEFFICIENT OF VARIATION		0.00	11.58	2.61	0.35	0.00
5% LSL VARIETY MEANS (*****=NS)		0.00	16.60	57.69	4.83	0.00
		0.00	32.99	*****	0.99	0.00
C O R R E L A T I O N S (+ - PROB=.05 + + - PROB=.01)						
YIELD	KG/HA	0.00	0.52++	0.28+	0.15	0.00
DAYS TO FLOWER		0.00	-0.21	-0.12	-0.53++	0.00
DAYS TO MATURITY		0.00	-0.08	-0.20	-0.16	0.00
NODULE NUMBER 1		0.00	0.17	0.84++	-0.03	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.13	0.81++	-0.04	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.09	0.08	-0.55++	0.00
LOGGING		0.00	-0.15	0.16	-0.69++	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.17	0.16	0.00
PODS PER PLANT		0.00	0.17	1.00	0.07	0.00
100 SEED WEIGHT		0.00	0.16	0.07	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 163 EXPERIMENT 364 YEAR 1976

REGION - MESOAMERICA COUNTRY - NICARAGUA
 SITE - POSOLTEGA ELEVATION - 60 M
 LATITUDE - 12 DEG. 33 MIN. N LONGITUDE - 86 DEG. 59 MIN. W
 COOPERATOR - MANUEL VANEGAS

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
8	JUPITER	2323.38	31.00	91.75	54.25	239.75	0.62	1.75	67.50	1.75
1	CALLAND	2249.62	24.00	88.00	45.00	180.25	0.20	1.54	66.00	1.00
16	COLUMBUS	2235.86	26.00	89.25	48.25	170.75	0.34	1.23	54.00	1.00
15	FORREST	2207.52	27.50	89.50	37.00	283.75	0.24	1.78	37.50	1.00
12	COBB	2204.61	27.00	89.75	49.00	195.00	0.35	1.58	30.75	1.00
7	CUTLER 71	2196.27	26.25	89.50	48.00	242.00	0.36	2.53	53.25	1.00
2	WOODWORTH	2123.34	24.00	88.00	37.75	150.50	0.28	1.75	46.75	1.00
3	BAGG	2088.33	27.50	89.50	45.00	247.25	0.34	1.73	36.75	1.00
5	HILL	2072.50	29.00	90.00	50.50	123.50	0.53	1.03	36.50	1.00
6	PICKETT 71	2060.00	27.00	90.25	51.75	233.00	0.45	1.23	26.75	1.00
9	BOSSIER	2059.16	25.75	89.00	81.50	246.25	0.65	2.20	28.25	1.00
13	DAVIS	2049.16	28.50	90.00	77.50	183.00	0.73	1.78	31.00	1.25
10	WILLIAMS	2023.74	24.75	88.50	66.25	243.00	0.48	2.98	53.50	1.00
14	IMPROVED PELICAN	1987.06	31.00	92.25	33.00	277.00	0.49	1.43	80.25	2.75
11	CLARK 63	1962.06	26.00	89.00	36.00	172.25	0.21	1.68	50.25	1.00
4	RANSOM	1915.80	27.00	90.00	49.00	238.75	0.33	1.55	27.00	1.00
GRAND MEAN 2109.90 27.02 89.64 50.61 214.13 0.41 1.73 45.38 1.17										
STANDARD ERROR OF A VARIETY MEAN 144.02 0.63 0.42 6.85 29.11 0.12 0.32 1.92 C.11										
COEFFICIENT OF VARIATION 13.65% 4.64% 0.95% 27.09% 27.19% 60.17% 36.68% 8.48% 18.88%										
5% LSD VARIETY MEANS (*****=NS) ***** 1.79 1.21 19.53 82.93 ***** 0.91 5.48 0.32										
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	-0.15	-0.07	0.25+	0.06	0.11	0.26+	0.19	-0.05
DAYS TO FLOWER	1.00	-0.15	1.00	0.85++	-0.05	0.09	0.31+	-0.27+	0.13	0.59++
DAYS TO MATURITY	-0.07	0.85++	1.00	1.00	-0.06	0.22	0.21	-0.20	0.16	0.55++
NODULE NUMBER 1	0.25+	-0.05	-0.06	-0.06	1.00	0.55++	0.36++	-0.24	-0.18	-0.22
NODULE NUMBER 2	0.06	0.09	0.22	0.22	0.02	1.00	0.07	0.51++	0.11	0.22
NODULE WEIGHT 1	0.11	0.31+	0.21	0.21	0.55++	0.07	1.00	0.29+	-0.04	0.23
NODULE WEIGHT 2	0.26+	-0.27+	-0.20	-0.20	0.36++	0.51++	0.29+	1.00	0.11	-0.09
PLANT HEIGHT	0.19	0.13	0.16	0.16	-0.24	0.11	-0.04	0.11	1.00	0.59++
LOGGING	-0.05	0.59++	0.55++	0.55++	-0.18	0.22	0.23	-0.09	0.59++	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.09	-0.15	-0.26+	-0.26+	0.05	-0.39++	0.10	-0.03	-0.06	-0.23
PODS PER PLANT	0.16	0.34++	0.37++	0.37++	-0.21	0.22	0.08	0.04	0.82++	0.75++
100 SEED WEIGHT	0.44++	-0.37++	-0.23	-0.23	0.45++	0.14	0.03	0.33++	-0.12	-0.36++
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 163 EXPERIMENT 364 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	JUPITER	0.00	243.25	36.83	15.86	0.00
1	CALLAND	0.00	276.75	29.83	17.40	0.00
16	COLUMBUS	0.00	240.00	23.55	15.20	0.00
15	FORREST	0.00	248.00	19.60	13.40	0.00
12	COBB	0.00	227.00	21.55	17.63	0.00
7	CUTLER 71	0.00	225.25	24.50	17.35	0.00
2	WOODWORTH	0.00	264.25	20.90	14.03	0.00
3	BAGG	0.00	255.00	18.08	14.40	0.00
5	HILL	0.00	280.25	17.93	13.54	0.00
6	PICKETT 71	0.00	231.50	17.18	16.93	0.00
9	BOSSIER	0.00	189.00	15.93	17.33	0.00
13	DAVIS	0.00	306.00	16.65	14.51	0.00
10	WILLIAMS	0.00	256.75	23.83	16.05	0.00
14	IMPROVED PELICAN	0.00	202.50	42.85	11.93	0.00
11	CLARK 63	0.00	275.50	20.93	13.45	0.00
4	RANSOM	0.00	246.00	17.45	14.79	0.00
	GRAND MEAN	0.00	247.94	22.97	15.24	0.00
	STANDARD ERROR OF A VARIETY MEAN	0.00	13.07	1.84	0.65	0.00
	COEFFICIENT OF VARIATION	0.00%	10.54%	15.98%	8.59%	0.00%
	5% LSD VARIETY MEANS (*****=NS)	0.00	37.23	5.23	1.86	0.00
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
	YIELD KG/HA	0.00	0.09	0.16	0.44++	0.00
	DAYS TO FLOWER	0.00	-0.15	0.34++	-0.37++	0.00
	DAYS TO MATURITY	0.00	-0.26+	0.37++	-0.23	0.00
	NODULE NUMBER 1	0.00	0.05	-0.21	0.45++	0.00
	NODULE NUMBER 2	0.00	-0.39++	0.22	0.14	0.00
	NODULE WEIGHT 1	0.00	0.10	0.08	0.03	0.00
	NODULE WEIGHT 2	0.00	-0.03	0.04	0.33++	0.00
	PLANT HEIGHT	0.00	-0.06	0.82++	-0.12	0.00
	LODGING	0.00	-0.23	0.75++	-0.36++	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	-0.17	-0.23	0.00
	PODS PER PLANT	0.00	-0.17	1.00	-0.10	0.00
	100 SEED WEIGHT	0.00	-0.23	-0.10	1.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 164 EXPERIMENT 40 YEAR 1976

REGION - MESOAMERICA
 SITE - ISABELA
 LATITUDE - 18 DEG. 28 MIN. N
 COOPERATOR - E.H. PASCHAL
 DATE PLANTED - JULY 6, 1976
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - P 65.0
 AMOUNT OF MOISTURE - 394 MM
 NUMBER OF IRRIGATIONS - 1 (25 MM)

COUNTRY - PUERTO RICO
 ELEVATION - 140 M
 LONGITUDE - 67 DEG. W
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
12	COBB	2546.54	32.00	102.25	224.50	269.50	2.71	3.72	58.00	1.25
8	JUPITER	2268.93	54.25	111.00	253.00	302.00	3.22	3.35	93.75	2.50
13	DAVIS	2260.09	34.00	98.25	225.50	279.75	2.97	3.90	59.50	1.00
9	BOSSIER	2170.89	32.00	104.75	326.50	343.25	3.04	3.88	44.75	1.00
16	COLUMBUS	2145.51	30.00	89.75	297.00	250.50	3.10	3.99	63.75	1.25
15	FORREST	2134.36	30.00	100.00	233.50	263.25	2.74	3.60	49.25	1.00
4	RANSOM	2097.83	31.00	104.00	286.00	351.25	2.81	3.27	40.50	1.00
6	PICKETT 71	2076.68	30.00	98.50	229.00	283.50	2.77	3.60	37.75	1.00
7	CUTLER 71	2025.16	26.00	88.50	279.25	236.50	3.43	3.61	56.50	1.25
10	WILLIAMS	1987.48	26.00	90.75	238.75	223.75	2.85	3.37	53.00	1.75
5	HILL	1967.87	32.00	99.00	224.75	246.75	2.58	3.54	51.00	1.75
14	IMPROVED PELICAN	1952.49	42.00	100.00	187.25	227.50	2.87	2.89	91.50	1.25
1	CALLAND	1927.11	29.00	89.75	232.25	275.50	3.29	4.77	56.25	1.00
3	BRAGG	1774.47	32.00	102.25	210.75	301.50	2.68	3.84	45.75	1.00
11	CLARK 63	1698.72	28.00	89.75	182.50	160.00	2.58	3.33	49.50	2.00
2	WOODWORTH	1572.22	26.00	96.00	180.25	156.25	2.96	3.44	48.25	1.75
	GRAND MEAN	2037.90	32.14	97.78	238.17	260.67	2.91	3.63	56.19	1.36
	STANDARD ERROR OF A VARIETY MEAN	133.56	0.19	1.81	18.75	24.22	0.15	0.27	3.95	0.23
	COEFFICIENT OF VARIATION	13.11%	1.16%	3.70%	15.75%	18.58%	10.13%	14.89%	14.04%	34.38%
	5% ISI VARIETY MEANS (*****=NS)	380.44	0.53	5.16	53.41	68.98	0.42	0.77	11.24	0.67
CORRELATIONS										
	YIELD	1.00								
	DAYS TO FLOWER	0.24	0.24	0.30+	0.24	0.38++	0.11	0.14	0.29+	-0.08
	DAYS TO MATURITY	0.30+	1.00	0.63++	-0.00	0.23	0.10	-0.17	0.73++	0.31+
	NODULE NUMBER 1	0.24	-0.00	0.09	0.09	0.38++	-0.11	-0.15	-0.07	-0.19
	NODULE NUMBER 2	0.38++	0.23	0.38++	0.51+	1.00	0.52++	0.30+	-0.08	-0.19
	NODULE WEIGHT 1	0.11	0.10	-0.15	0.51++	0.21	0.21	0.52++	-0.05	-0.25+
	NODULE WEIGHT 2	0.14	-0.17	-0.15	0.30+	0.52++	1.00	0.43++	0.21	-0.12
	PLANT	0.29+	0.73++	0.17	-0.08	0.52++	0.43++	1.00	-0.14	-0.17
	LODGING	-0.08	0.31+	-0.07	-0.19	-0.25+	-0.12	-0.17	1.00	0.40++
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PLANTS	-0.12	-0.58++	-0.49++	-0.15	-0.16	-0.07	0.13	-0.42++	-0.19
	PODS PER PLANT	0.47++	0.79++	0.63++	0.01	0.30+	0.01	-0.09	0.67++	0.09
	100 SEED	-0.14	-0.43++	-0.31+	0.20	-0.17	0.17	0.10	-0.37++	0.13
	QUALITY OF SEED	-0.34++	-0.50++	-0.09	-0.02	-0.22	-0.05	0.01	-0.51++	-0.04

(* - PROB=.05 ** - PROB=.01)

TABLE 164 EXPERIMENT 40 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
12	COBB	0.00	176.00	39.23	16.70	2.50	38.8	24.4
8	JUPITER	0.00	124.75	50.28	16.40	2.25	40.2	24.1
13	DAVIS	0.00	231.00	30.33	14.03	2.00	40.0	23.9
9	BOSSIER	0.00	161.75	32.25	16.90	3.75	45.8	22.3
16	COLUMBUS	0.00	195.50	27.45	16.55	2.25	41.9	23.6
15	FORREST	0.00	184.25	34.93	13.90	3.50	42.9	22.6
4	RANSOM	0.00	196.00	26.38	17.28	3.00	41.2	25.2
6	PICKETT 71	0.00	211.25	28.60	16.48	2.75	41.8	22.8
7	CUTLER 71	0.00	200.50	18.83	18.58	3.25	42.5	23.6
10	WILLIAMS	0.00	200.25	19.15	18.80	3.75	43.4	23.0
5	HILL	0.00	213.75	25.98	14.85	3.25	44.2	22.1
14	IMPROVED PELICAN	0.00	166.25	47.65	11.15	1.00	41.4	22.8
1	CALLAND	0.00	211.25	21.75	18.93	3.50	43.1	21.9
3	BRAGG	0.00	180.25	27.15	16.33	4.00	43.8	22.7
11	CLARK 63	0.00	185.50	17.80	18.15	3.75	43.1	23.7
2	WOODWORTH	0.00	205.50	19.63	17.33	4.75	42.9	23.7
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	190.23	29.21	16.40	3.08		
COEFFICIENT OF VARIATION		0.00%	9.97	2.37	0.37	0.35		
5% ISL VARIETY MEANS (*****=NS)		0.00	10.48%	16.20%	4.52%	22.43%		
			28.39	6.74	1.05	0.98		
C O R R E L A T I O N S								
			(+ - PROB=.05		++ - PROB=.01)			
YIELD	KG/HA	0.00	-0.12	0.47++	-0.14	-0.34++		
DAYS TO FLOWER		0.00	-0.58++	0.79++	-0.43++	-0.50++		
DAYS TO MATURITY		0.00	-0.49++	0.63++	-0.31+	-0.09		
NODULE NUMBER 1		0.00	-0.15	0.01	0.20	-0.02		
NODULE NUMBER 2		0.00	-0.16	0.30+	-0.17	-0.22		
NODULE WEIGHT 1		0.00	-0.07	0.01	0.17	-0.05		
NODULE WEIGHT 2		0.00	0.13	-0.09	0.10	0.01		
PLANT HEIGHT		0.00	-0.42++	0.67++	-0.37++	-0.51++		
LODGING		0.00	-0.19	0.09	0.13	-0.04		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.57++	0.10	0.04		
PODS PER PLANT		0.00	-0.57++	1.00	-0.60++	-0.58++		
100 SEED WEIGHT		0.00	0.10	-0.60++	1.00	0.51++		
QUALITY OF SEED		0.00	0.04	-0.58++	0.51++	1.00		

TABLE 165 EXPERIMENT 373 YEAR 1976

REGION - MESOAMERICA
 SITE - PORT-OF-SPAIN
 LATITUDE - 11 DEG. N
 COOPERATOR - DAVID C. MARTIN
 DATE PLANTED - NOVEMBER 26, 1976
 SOIL TYPE - SAND 42%, SILT 46%, CLAY 12%
 FERTILIZER USED (KG/HA) - N 25.0, P 21.0, K 41.0
 AMOUNT OF MOISTURE - 210 MM
 NUMBER OF IRRIGATIONS - 1

COUNTRY - TRINIDAD AND TOBAGO
 ELEVATION - 6 M
 LONGITUDE - 61 DEG. W

DATE HARVESTED - JANUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	JUPITER	2952.67	33.75	88.75	317.25	458.50	1.05	3.43	62.05	3.00	3.00
1	CALLAND	2696.37	24.50	83.25	137.00	230.50	0.65	2.77	40.70	1.25	1.25
13	DAVIS	2548.43	29.50	86.25	127.75	336.75	0.49	2.27	28.05	1.00	1.00
16	COLUMBUS	2494.25	24.50	83.75	136.25	315.75	0.56	2.56	43.80	1.75	1.75
6	PICKETT 71	2454.66	25.50	77.00	231.25	268.25	0.74	1.68	28.95	1.00	1.00
11	CLARK 63	2273.37	24.00	82.50	138.75	270.25	0.42	2.14	37.80	2.25	2.25
10	WILLIAMS	2269.62	25.75	77.25	161.25	328.50	0.41	1.68	38.70	1.00	1.00
15	FORREST	2212.94	27.75	76.75	154.00	308.75	0.38	1.74	35.10	2.00	2.00
4	RANSOM	2067.08	26.25	86.00	128.50	271.75	0.37	1.66	28.85	1.00	1.00
12	COBB	2002.48	26.75	81.50	111.75	318.25	0.39	2.09	24.05	1.00	1.00
7	CUTLER 71	1919.13	25.00	82.25	206.75	258.00	0.56	1.99	40.30	2.00	2.00
3	BRAEG	1892.04	25.75	83.00	173.00	331.25	0.44	1.72	32.45	1.00	1.00
14	IMPROVED PELICAN	1794.11	32.50	81.25	211.50	326.00	0.93	2.50	37.05	1.50	1.50
2	WOODWORTH	1558.64	25.50	71.75	120.50	193.50	0.32	1.46	32.60	2.25	2.25
9	BOSSIER	1552.39	24.50	75.25	106.75	279.00	0.25	1.74	23.25	1.00	1.00
5	HILL	1521.14	30.50	73.25	130.00	238.00	0.35	1.66	28.25	1.50	1.50
GRAND MEAN											
STANDARD ERROR OF A VARIETY MEAN											
COEFFICIENT OF VARIATION 30.43%											
5% LSD VARIETY MEANS (*****=NS)											
CORRELATIONS (+ - PROB=.05 ** - PROB=.01) =											
YIELD	KG/HA	1.00									
DAYS TO FLOWER		-0.01									
DAYS TO MATURITY		0.54**									
NODULE NUMBER 1		0.38**									
NODULE NUMBER 2		0.32*									
NODULE WEIGHT 1		0.34**									
NODULE WEIGHT 2		0.35**									
PLANT		0.63**									
LODGING		0.23									
SHATTER		-0.05									
HARVEST		0.36**									
PODS PER PLANT		0.40**									
100 SEED WEIGHT		0.44**									
QUALITY OF SEED		-0.17									

TABLE 165 EXPERIMENT 373 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	JUPITER	1.00	278.75	16.15	21.01	2.00	39.8	26.2
1	CALLAND	1.00	304.00	10.90	23.68	3.50	43.0	20.4
13	DAVIS	1.00	303.75	12.78	20.41	2.25	42.6	22.5
16	COLUMBUS	1.00	277.25	14.28	21.82	2.75	44.6	21.1
6	PICKETT 71	1.50	244.00	13.75	20.21	2.25	43.4	22.7
11	CLARK 63	1.00	281.75	11.60	19.55	2.75	42.3	21.7
10	WILLIAMS	1.00	290.25	12.20	22.51	2.50	43.5	22.8
15	FORREST	1.00	262.00	15.63	17.70	1.75	41.9	22.6
4	RANSOM	1.00	261.25	11.05	19.88	2.75	42.1	23.9
12	COBB	1.25	249.25	14.40	19.67	2.00	40.9	22.5
7	CUTLER 71	1.00	223.75	10.65	23.09	3.25	44.2	21.5
3	BAGG	1.00	283.50	12.58	22.42	2.50	43.0	22.4
14	IMPROVED PELICAN	1.00	230.75	17.47	16.51	1.50	45.1	22.0
2	WOODWORTH	1.00	270.00	9.57	18.82	3.00	42.4	22.4
9	BOSSIER	1.00	239.25	12.40	19.11	2.75	44.5	22.0
5	HILL	1.00	303.00	9.72	17.52	2.75	41.0	22.0
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****NS)								
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
HARVEST								
PLANTS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 166 EXPERIMENT 48 YEAR 1976

REGION - MIDDLE EAST COUNTRY - IRAN
 SITE - DEZPUL ELEVATION - 81 M
 LATITUDE - 32 DEG. 16 MIN. N LONGITUDE - 48 DEG. 25 MIN. E
 COOPERATORS - E.K. VAUGHAN, N. HODJATI
 DATE PLANTED - MAY 26, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL TYPE - SILTY CLAY, PH 7.66
 FERTILIZER USED (KG/HA) - N 13.5, P 7.2
 AMOUNT OF MOISTURE - 1200 MM
 NUMBER OF IRRIGATIONS - 12 (1200 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSOM	2719.32	80.00	155.00	35.50	78.25	0.94	1.97	70.75	1.00
8	BOSSIER	2682.66	80.00	159.00	22.50	19.00	0.26	0.57	92.25	1.00
1	CALLAND	2192.78	31.00	127.00	28.50	87.50	0.77	3.24	79.25	1.00
12	DAVIS	2179.45	80.00	146.00	32.50	56.75	0.76	1.99	81.50	1.00
16	ESSEX	2141.13	56.00	146.50	23.50	64.75	0.76	1.81	44.25	1.00
3	BRAGG	2109.47	80.00	155.00	18.75	41.00	0.31	0.99	91.50	1.00
14	FORREST	1979.50	56.00	139.00	39.25	29.25	1.03	1.09	61.00	1.00
15	COLUMBUS	1969.51	38.00	127.00	12.00	39.25	0.30	1.34	67.25	1.00
6	PICKETT 71	1926.18	85.00	159.00	17.50	28.25	0.42	0.91	65.00	1.00
10	CLARK 63	1896.19	34.00	119.00	13.75	104.00	0.38	2.28	74.00	1.00
13	IMPROVED PELICAN	1872.86	95.00	159.00	10.25	1.50	0.20	0.09	161.25	1.00
5	HILL	1776.22	62.00	127.00	4.25	43.50	0.08	1.01	48.75	1.00
7	CUTLER 71	1612.93	34.00	127.00	26.25	80.00	0.74	2.75	70.25	1.00
2	WOODWORTH	1569.61	34.00	116.00	24.50	79.25	0.76	2.67	74.75	1.00
9	WILLIAMS	1562.94	31.00	116.00	27.50	92.25	0.72	2.51	73.75	1.00
11	COBB	1196.37	80.00	166.00	10.75	22.75	0.37	0.72	78.00	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
(+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.25+	0.26+	0.13	-0.03	0.06	-0.04	0.01	0.00
DAYS TO FLOWER	0.25+	0.25+	1.00	0.92++	-0.07	-0.37++	-0.15	-0.46++	0.42++	0.00
DAYS TO MATURITY	0.26+	0.26+	0.92++	1.00	-0.02	-0.36++	-0.09	-0.43++	0.34++	0.00
NODULE NUMBER 1	0.13	0.13	-0.07	-0.02	1.00	0.22	0.92++	0.35++	-0.08	0.00
NODULE NUMBER 2	-0.03	-0.03	-0.37++	-0.36++	0.22	1.00	0.25+	0.93++	-0.16	0.00
NODULE WEIGHT 1	0.06	0.06	-0.15	-0.09	0.22	0.25+	1.00	0.41+	-0.17	0.00
NODULE WEIGHT 2	-0.04	-0.04	-0.46++	-0.43++	0.35++	0.93++	0.41+	1.00	-0.19	0.00
PLANT HEIGHT	0.01	0.01	0.42++	0.34++	-0.08	-0.16	-0.17	-0.19	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	-0.05	-0.05	0.41++	0.29+	-0.13	-0.23	-0.14	-0.26+	0.84++	0.00
PLANTS HARVESTED	0.20	0.20	0.06	0.12	-0.04	-0.05	0.00	-0.04	-0.06	0.00
PODS PER PLANT	0.29+	0.29+	0.54++	0.47++	-0.12	-0.24	-0.16	-0.30+	0.36++	0.00
100 SEED WEIGHT	0.14	0.14	-0.40++	-0.18	0.18	0.37++	0.21	0.48++	-0.13	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 166 EXPERIMENT 48 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSON	1.00	77.50	64.75	18.85	0.00
8	BOSSIER	1.00	69.50	83.25	15.83	0.00
1	CALLAND	1.00	65.50	53.25	21.08	0.00
12	DAVIS	1.00	71.00	92.50	14.23	0.00
16	ESSEX	1.00	98.50	91.25	13.48	0.00
3	BRAGG	1.00	81.50	119.50	14.75	0.00
14	FORREST	1.00	57.00	95.00	12.30	0.00
15	COLUMBUS	1.00	65.00	68.50	16.05	0.00
6	PICKETT 71	1.00	64.25	64.00	13.65	0.00
10	CLARK 63	1.00	62.50	51.25	16.10	0.00
13	IMPROVED PELICAN	2.00	70.25	117.50	11.63	0.00
5	HILL	1.00	61.00	69.75	12.15	0.00
7	CUTLER 71	1.00	62.00	55.00	19.60	0.00
2	WOODWORTH	1.00	75.50	49.25	15.18	0.00
9	WILLIAMS	1.00	79.50	58.50	15.18	0.00
11	COBB	1.00	65.00	59.50	16.58	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.06	70.34	74.55	15.41	0.00
COEFFICIENT OF VARIATION		0.00	5.54	7.87	0.49	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	15.74%	21.11%	6.32%	0.00%
		0.00	15.77	22.41	1.39	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=-.01)		
YIELD	KG/HA	-0.05	0.20	0.29+	0.14	0.00
DAYS TO FLOWER		0.41++	0.06	0.54++	-0.40++	0.00
DAYS TO MATURITY		0.29+	0.12	0.47++	-0.18	0.00
NODULE NUMBER 1		-0.13	-0.04	-0.12	0.18	0.00
NODULE NUMBER 2		-0.23	-0.05	-0.24	0.37++	0.00
NODULE HEIGHT 1		-0.14	0.00	-0.16	0.21	0.00
NODULE HEIGHT 2		-0.26+	-0.04	-0.30+	0.48++	0.00
PLANT	HEIGHT	0.84++	-0.06	0.36++	-0.13	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	-0.00	0.43++	-0.36++	0.00
PLANTS	HARVEST	-0.00	1.00	0.25+	-0.07	0.00
PODS PER	PLANT	0.43++	0.25+	1.00	-0.45++	0.00
100 SEED	WEIGHT	-0.36++	-0.07	-0.45++	1.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 167 EXPERIMENT 87 YEAR 1976

REGION - MIDDLE EAST COUNTRY - IRAN
 SITE - GORGAN ELEVATION - 120 M
 LATITUDE - 36 DEG. 51 MIN. N LONGITUDE - 54 DEG. 28 MIN. E
 COOPERATORS - H. POURDAVAL, A. SHARIATI, S. GHOMY
 DATE PLANTED - MAY 2, 1976 DATE HARVESTED - AUGUST, 1976
 SOIL TYPE - CLAY, PH 7.7
 FERTILIZER USED (KG/HA) - N 27.0, P 69.0, K 25.0
 AMOUNT OF MOISTURE - 110 MM
 NUMBER OF IRRIGATIONS - 5

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	WELLS	5491.51	0.00	0.00	35.75	107.25	0.19	2.15	45.75	0.00
11	ESSEX	5277.72	0.00	0.00	29.75	119.25	0.17	1.40	57.50	0.00
2	WOODWORTH	5216.04	0.00	0.00	43.00	83.25	0.19	1.57	67.00	0.00
13	AMSOY 71	4868.47	0.00	0.00	56.25	129.25	0.34	2.50	47.00	0.00
1	CALLAND	4648.85	0.00	0.00	37.25	112.25	0.21	3.09	67.00	0.00
5	WILLIAMS	4600.50	0.00	0.00	65.50	145.50	0.34	2.22	59.00	0.00
9	BEESON	4479.65	0.00	0.00	32.75	72.25	0.23	2.52	53.00	0.00
12	CORSOY	4426.72	0.00	0.00	49.25	75.75	0.17	1.10	41.25	0.00
10	COLUMBUS	4310.45	0.00	0.00	44.75	101.75	0.16	1.82	39.00	0.00
14	HODGSON	4231.68	0.00	0.00	29.25	97.25	0.20	2.04	59.75	0.00
4	CUTLER 71	4109.15	0.00	0.00	53.75	123.25	0.23	1.74	88.75	0.00
6	CLARK 63	3904.11	0.00	0.00	44.00	160.75	0.22	2.38	89.25	0.00
16	STEELE	3251.90	0.00	0.00	58.75	111.25	0.54	2.54	70.50	0.00
15	HARK	2522.59	0.00	0.00	51.75	148.00	0.25	1.58	87.00	0.00
7	FORREST	2178.35	0.00	0.00	42.25	44.50	0.10	0.42	81.25	0.00
3	HILL	2045.83	0.00	0.00	86.75	31.25	1.25	0.47	71.75	0.00
	GRAND MEAN	4097.72	0.00	0.00	47.55	103.92	0.30	1.85	64.05	0.00
	STANDARD ERROR OF A VARIETY MEAN	321.70	0.00	0.00	16.92	31.00	0.21	0.87	3.29	0.00
	COEFFICIENT OF VARIATION	15.70%	0.00%	0.00%	71.16%	59.66%	143.82%	94.56%	10.26%	0.00%
	5% LSI VARIETY MEANS (*****=NS)	916.33	0.00	0.00	*****	*****	*****	*****	9.36	0.00

(+ - PROB=.05 ++ - PROB=.01)

C O R R E L A T I O N S

YIELD	KG/HA	1.00								
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.25+	0.00	0.00	0.00	0.41++	0.41++	0.77++	0.29+	0.22	0.00
NODULE WEIGHT 1	-0.32++	0.00	0.00	0.00	0.41++	1.00	0.10	0.74++	0.22	0.00
NODULE WEIGHT 2	0.23	0.00	0.00	0.00	0.29+	0.74++	1.00	0.06	0.14	0.00
PLANT HEIGHT	-0.41++	0.00	0.00	0.00	0.22	0.22	0.14	0.02	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.20	0.00	0.00	0.00	0.15	0.19	0.20	0.30+	-0.24	0.00
PODS PER PLANT	-0.06	0.00	0.00	0.00	0.18	0.18	0.11	0.16	-0.32++	0.00
100 SEED WEIGHT	0.51++	0.00	0.00	0.00	-0.27+	0.04	-0.37++	0.11	-0.47++	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 167 EXPERIMENT 87 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	WELLS	0.00	171.00	34.50	14.45	0.00
11	ESSEX	0.00	172.25	27.75	14.63	0.00
2	WOODWORTH	0.00	148.50	37.00	13.78	0.00
13	AMSOY 71	0.00	150.00	32.25	14.43	0.00
1	CALLAND	0.00	167.75	24.50	13.73	0.00
5	WILLIAMS	0.00	175.25	27.75	13.95	0.00
9	BEESON	0.00	179.50	25.75	15.43	0.00
12	CORSOY	0.00	157.25	30.75	15.85	0.00
10	COLUMBUS	0.00	182.75	27.00	16.20	0.00
14	HODGSON	0.00	195.75	29.00	17.25	0.00
4	CUTLER 71	0.00	154.50	39.75	14.80	0.00
6	CLARK 63	0.00	163.75	41.00	13.43	0.00
16	STEELE	0.00	169.00	40.25	12.58	0.00
15	HARK	0.00	120.25	40.75	11.75	0.00
7	FORREST	0.00	157.00	25.00	13.23	0.00
3	HILL	0.00	160.75	34.75	10.68	0.00
	GRAND MEAN	0.00	164.08	32.36	14.13	0.00
	STANDARD ERROR OF A VARIETY MEAN	0.00	10.99	4.29	0.58	0.00
	COEFFICIENT OF VARIATION	0.00%	13.40%	26.52%	8.15%	0.00%
	5% ISI VARIETY MEANS (*****=NS)	0.00	31.31	12.22	1.64	0.00
C O R R E L A T I O N S						
			(+ - PROB=.05		++ - PROB=.01)	
	YIELD KG/HA	0.00	0.20	-0.06	0.51++	0.00
	DAYS TO FLOWER	0.00	0.90	0.00	0.00	0.00
	DAYS TO MATURITY	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 1	0.00	0.15	0.18	-0.27+	0.00
	NODULE NUMBER 2	0.00	0.19	0.18	0.04	0.00
	NODULE WEIGHT 1	0.00	0.20	0.11	-0.37++	0.00
	NODULE WEIGHT 2	0.00	0.30+	0.16	0.11	0.00
	PLANT HEIGHT	0.00	-0.24	0.32++	-0.47++	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	-0.24	0.33++	0.00
	PODS PER PLANT	0.00	-0.24	1.00	-0.12	0.00
	100 SEED WEIGHT	0.00	0.33++	-0.12	1.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 168 EXPERIMENT 83 YEAR 1976

REGION - MIDDLE EAST COUNTRY - IRAN
 SITE - KARAJ ELEVATION - 1300 M
 LATITUDE - 37 DEG. 47 MIN. N LONGITUDE - 50 DEG. E
 COOPERATORS - M.C. AMIRSHAHI, B.Y. SAMADI
 DATE PLANTED - MAY 17, 1976 DATE HARVESTED - NOVEMBER, 1976
 SOIL TYPE - SILT PH 7.5 - 8.0
 AMOUNT OF MOISTURE - 20 MM
 NUMBER OF IRRIGATIONS - 12
 SUBSTITUTE VARIETIES - LINDARIN, HAROSOI

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
5	WILLIAMS	1835.78	55.75	138.75	106.50	185.00	0.00	0.00	57.98	1.25
3	HILL	1667.00	77.00	148.50	48.50	147.00	0.00	0.00	75.45	1.00
9	BEESON	1645.75	51.25	138.00	94.50	206.00	0.00	0.00	53.10	1.00
1	CALLAND	1583.65	55.00	140.75	115.75	341.50	0.00	0.00	52.05	1.50
6	CLARK 63	1566.98	56.00	140.00	78.75	104.75	0.00	0.00	60.95	1.50
7	FORREST	1546.14	75.50	148.75	103.75	186.75	0.00	0.00	89.82	1.75
13	AMSOY 71	1524.89	51.25	138.75	104.75	165.50	0.00	0.00	48.70	1.50
16	STEELE	1452.37	46.75	130.50	149.50	160.00	0.00	0.00	41.98	1.00
11	HAROSOI	1389.86	50.00	136.75	130.25	294.25	0.00	0.00	49.80	1.25
4	CUTLER 71	1338.18	58.00	140.00	104.00	220.75	0.00	0.00	60.45	1.50
8	WELLS	1265.25	49.50	139.75	116.25	232.25	0.00	0.00	43.85	1.50
2	WOODWORTH	1264.84	54.25	139.00	75.50	160.50	0.00	0.00	53.58	1.50
12	CORSOY	1089.80	50.50	140.50	111.50	114.25	0.00	0.00	40.03	1.25
10	LINDARIN	958.52	51.00	138.00	84.75	139.75	0.00	0.00	46.53	1.00
15	HARK	941.85	49.75	137.75	134.75	299.75	0.00	0.00	45.70	1.50
14	HODGSON	873.09	45.25	140.75	111.25	120.75	0.00	0.00	40.90	1.25
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.30+	0.04	0.04	0.21	0.00	0.00	0.55++	0.24
DAYS TO FLOWER	1.00	0.30+	0.57++	-0.36++	-0.36++	-0.08	0.00	0.00	0.84++	0.07
DAYS TO MATURITY	0.04	0.57++	1.00	-0.31+	-0.31+	-0.09	0.00	0.00	0.43++	0.08
NODULE NUMBER 1	0.04	-0.36++	-0.31+	1.00	1.00	0.24	0.00	0.00	-0.23	-0.03
NODULE NUMBER 2	0.21	-0.08	-0.09	0.24	0.24	1.00	0.00	0.00	0.01	0.21
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT	HEIGHT	0.55++	0.84++	0.43++	-0.23	0.01	0.00	0.00	1.00	0.23
LODGING	0.24	0.07	0.08	-0.03	-0.03	0.21	0.00	0.00	0.23	1.00
SHATTER	-0.52++	-0.43++	-0.29+	0.15	-0.05	-0.05	0.00	0.00	-0.44++	-0.00
PLANTS HARVEST	0.32+	0.20	0.11	-0.31+	-0.19	-0.31+	0.00	0.00	0.20	-0.09
PODS PER PLANT	0.25+	0.50++	0.32++	0.01	0.11	0.11	0.00	0.00	0.60++	0.18
100 SEED WEIGHT	0.31+	-0.50++	-0.21	0.22	0.19	0.19	0.00	0.00	-0.30+	-0.13
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 168 EXPERIMENT 83 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
5	WILLIAMS	1.00	200.00	15.73	17.45	0.00
3	HILL	1.00	200.00	23.05	14.95	0.00
9	BEESON	1.75	199.75	14.40	19.08	0.00
1	CALLAND	1.75	198.75	13.08	17.70	0.00
6	CLARK 63	1.25	199.00	16.48	16.30	0.00
7	FORREST	1.25	199.25	24.33	13.65	0.00
13	AMSOY 71	1.75	200.00	13.88	16.53	0.00
16	STEELE	2.00	198.50	12.18	18.30	0.00
11	HAROSoy	2.00	196.50	16.63	16.43	0.00
4	CUTLER 71	1.50	200.00	16.95	15.75	0.00
8	WELLS	1.50	191.50	13.90	15.33	0.00
2	WOODWORTH	2.50	197.00	15.03	15.50	0.00
12	CORSOY	2.25	196.00	13.93	16.13	0.00
10	LINDARIN	3.25	192.25	15.80	15.83	0.00
15	HARK	2.25	126.50	21.83	16.15	0.00
14	HODGSON	2.00	195.25	14.50	17.73	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.81	193.14	16.35	16.42	0.00
COEFFICIENT OF VARIATION		0.26	4.06	2.34	0.60	0.00
5% LSD VARIETY MEANS (*****=NS)		29.22%	4.20%	28.56%	7.27%	0.00%
		0.75	11.55	6.65	1.70	0.00
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	-0.52++	0.32+	0.25+	0.31+	0.00
DAYS TO FLOWER		-0.43++	0.20	0.50++	-0.50++	0.00
DAYS TO MATURITY		-0.29+	0.11	0.32++	-0.21	0.00
NODULE NUMBER 1		0.15	-0.31+	0.01	0.22	0.00
NODULE NUMBER 2		-0.05	-0.19	0.11	0.19	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	-0.44++	0.20	0.60++	-0.30+	0.00
LODGING		-0.00	-0.09	0.18	-0.13	0.00
SHATTER		1.00	-0.27+	-0.20	-0.02	0.00
PLANTS	HARVEST	-0.27+	1.00	-0.27+	0.04	0.00
PODS PER	PLANT	-0.20	-0.27+	1.00	-0.20	0.00
100 SEED	WEIGHT	-0.02	0.04	-0.20	1.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 169 EXPERIMENT 108 YEAR 1976

REGION - MIDDLE EAST
 SITE - REZAIYEH
 LATITUDE - 37 DEG. N
 COOPERATOR - J. CARAPETIAN

COUNTRY - IRAN
 ELEVATION - 1300 M
 LONGITUDE - 45 DEG. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	BEESON	2021.74	54.00	145.75	47.75	41.00	0.19	0.45	59.75	1.00
11	AMSOY 71	1963.48	54.00	143.75	40.75	42.75	0.13	0.48	65.57	1.25
3	CUTLER 71	1877.54	83.00	156.50	95.25	113.25	0.61	2.10	78.68	1.25
2	WOODWORTH	1726.76	70.00	141.00	57.25	40.00	0.27	1.05	54.48	1.00
9	COLUMBUS	1672.63	83.00	164.00	66.50	78.25	0.70	1.34	68.77	1.00
14	STEELE	1607.07	52.00	135.50	57.75	76.75	0.24	0.98	43.48	1.00
7	WELLS	1605.74	54.00	150.75	35.00	51.00	0.12	0.59	48.98	1.00
1	CALLAND	1552.69	54.00	155.50	32.00	45.50	0.10	0.43	60.05	1.25
4	WILLIAMS	1389.24	70.00	151.75	83.75	85.25	0.40	1.27	54.00	1.00
13	HARK	1359.81	54.00	141.75	46.75	54.00	0.16	0.44	50.50	1.00
5	CLARK 63	1342.19	70.00	153.00	52.50	55.75	0.17	0.86	57.98	1.00
10	CORSOY	1249.21	54.00	140.75	43.75	71.50	0.09	0.43	37.23	1.00
15	SWIFT	1167.11	54.00	121.00	48.50	49.00	0.16	0.45	37.30	1.00
12	HODGSON	1156.61	52.00	139.25	59.00	61.75	0.16	0.46	39.53	1.00
16	ALTONA	1087.13	52.00	114.00	54.25	39.25	0.16	0.44	31.00	1.00
6	FORREST	663.01	103.00	193.00	36.75	29.75	0.31	0.46	67.70	1.00
GRAND MEAN										
1465.12										
63.31										
146.70										
53.59										
58.42										
0.00										
2.97										
15.63										
4.05%										
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17.67										

91.97%										
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TABLE 169 EXPERIMENT 108 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BEESON	1.25	191.75	24.35	17.13	3.00	40.0	21.3
11	AMSOY 71	1.00	196.75	26.13	14.43	3.00	38.4	22.0
3	CUTLER 71	1.00	188.50	27.28	16.28	1.50	41.5	20.5
2	WOODWORTH	1.00	199.75	21.70	14.20	2.25	39.5	22.8
9	COLUMBUS	1.00	191.25	19.83	14.65	1.25	39.9	20.9
14	STEELE	1.25	194.75	19.43	17.03	2.75	43.7	21.8
7	WELLS	1.25	198.75	19.73	15.08	2.50	40.5	21.9
1	CALLAND	1.25	187.50	19.00	16.63	3.25	42.7	20.8
4	WILLIAMS	1.00	188.50	19.75	15.25	1.50	42.2	20.7
13	HARK	1.00	196.25	22.40	13.80	3.50	39.2	22.6
5	CLARK 63	1.00	195.25	19.68	14.40	2.25	41.7	21.5
10	CORSOY	1.25	198.00	18.83	13.25	3.50	42.3	20.7
15	SWIFT	1.25	198.25	17.20	13.55	3.50	39.2	22.4
12	HODGSON	2.00	199.00	18.48	14.93	3.75	40.0	23.4
16	ALTONA	1.75	187.00	17.83	16.93	3.75	43.5	17.3
6	FORREST	1.00	191.75	19.68	10.15	2.50	42.8	16.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSI VARIETY MEANS (*****=NS)								
C O R R E L A T I O N S								
(+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.29+	0.17	0.76++	0.65++	-0.56++		
DAYS TO FLOWER		-0.31+	-0.16	0.08	-0.41++	-0.53++		
DAYS TO MATURITY		-0.19	-0.15	0.10	-0.32++	-0.40++		
NODULE NUMBER 1		-0.14	-0.01	0.19	0.23	-0.45++		
NODULE NUMBER 2		-0.17	0.03	0.34++	0.33++	-0.50++		
NODULE WEIGHT 1		-0.23	-0.00	0.28+	0.11	-0.62++		
NODULE WEIGHT 2		-0.21	0.02	0.34++	0.28+	-0.65++		
PLANT	HEIGHT	-0.39++	-0.03	0.66++	0.18	-0.70++		
LODGING		-0.10	-0.03	0.39++	0.23	-0.30+		
SHATTER		1.00	-0.08	-0.16	0.04	0.46++		
PLANTS	HARVEST	-0.08	1.00	0.15	-0.18	0.03		
PODS PER	PLANT	-0.16	0.15	1.00	0.38++	-0.41++		
100 SEED	WEIGHT	0.04	-0.16	0.38++	1.00	-0.25+		
QUALITY	OF SEED	0.46++	0.03	-0.41++	-0.25+	1.00		

TABLE 170 EXPERIMENT 89 YEAR 1976

REGION - MIDDLE EAST COUNTRY - IRAN
 SITE - SARI ELEVATION - 28 M
 LATITUDE - 36 DEG. 41 MIN. N LONGITUDE - 53 DEG. 10 MIN. E
 COOPERATORS - H. POURDAVAI, H. GHAFARI
 DATE PLANTED - MAY 1, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL TYPE - CLAY, PH 7.4
 FERTILIZER USED (KG/HA) - N 27.0, P 69.0, K 25.0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
5	WILLIAMS	4210.84	0.00	0.00	209.00	213.00	1.80	2.89	81.75	0.00
2	WOODWORTH	4159.16	0.00	0.00	174.75	138.75	1.24	1.76	91.75	0.00
8	WELLS	4154.58	0.00	0.00	111.50	142.25	1.12	2.76	93.75	0.00
12	CORSOY	3961.21	0.00	0.00	178.50	139.50	1.67	1.42	73.75	0.00
11	ESSEX	3948.29	0.00	0.00	137.75	146.00	1.09	1.65	95.00	0.00
9	BESON	3904.11	0.00	0.00	164.00	172.25	1.40	1.88	90.50	0.00
10	COLUMBUS	3791.59	0.00	0.00	126.75	168.25	0.97	1.67	72.25	0.00
16	STEELE	3697.41	0.00	0.00	342.25	341.25	2.71	3.40	88.00	0.00
1	CALLAND	3647.40	0.00	0.00	105.25	140.75	1.25	1.63	85.00	0.00
13	ANSOY 71	3544.04	0.00	0.00	243.00	201.00	1.68	2.31	72.25	0.00
3	HILL	3478.20	0.00	0.00	132.75	135.25	0.89	1.00	138.00	0.00
7	FORREST	3438.19	0.00	0.00	172.75	163.25	1.79	1.15	75.00	0.00
14	HODGSON	3339.42	0.00	0.00	128.00	175.00	1.38	2.12	68.75	0.00
6	CLARK 63	3201.06	0.00	0.00	151.50	175.25	1.40	1.95	93.75	0.00
4	CUTLER 71	3023.10	0.00	0.00	213.50	269.75	1.95	2.26	86.50	0.00
15	HARK	2565.51	0.00	0.00	147.50	239.25	1.57	1.67	90.00	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSE VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.00	0.00	-0.05	-0.10	-0.09	0.04	-0.13	0.00
DAYS TO FLOWER	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	-0.05	0.00	0.00	0.00	0.66++	0.79++	0.79++	0.46++	-0.11	0.00
NODULE NUMBER 2	-0.10	0.00	0.00	0.00	0.66++	1.00	0.62++	0.57++	-0.13	0.00
NODULE WEIGHT 1	-0.09	0.00	0.00	0.00	0.79++	0.62++	1.00	0.41++	-0.15	0.00
NODULE WEIGHT 2	0.04	0.00	0.00	0.00	0.46++	0.57++	0.41++	1.00	-0.05	0.00
PLANT HEIGHT	-0.13	0.00	0.00	0.00	-0.11	-0.13	-0.15	-0.05	1.00	0.00
LOGGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.17	0.00	0.00	0.00	0.14	0.07	-0.08	0.27+	0.22	0.00
100 SEED WEIGHT	0.32++	0.00	0.00	0.00	-0.02	-0.06	0.05	0.11	-0.32+	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 170 EXPERIMENT 89 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
5	WILLIAMS	0.00	0.00	46.25	18.30	0.00
2	WOODWORTH	0.00	0.00	44.25	17.23	0.00
8	WELLS	0.00	0.00	42.25	16.48	0.00
12	CORSOY	0.00	0.00	38.25	18.13	0.00
11	ESSEX	0.00	0.00	46.75	18.63	0.00
9	BEESON	0.00	0.00	54.75	19.38	0.00
10	COLUMBUS	0.00	0.00	46.50	16.63	0.00
16	STEELE	0.00	0.00	56.25	14.15	0.00
1	CALLAND	0.00	0.00	32.75	16.68	0.00
13	ANSOY 71	0.00	0.00	43.00	17.15	0.00
3	HILL	0.00	0.00	47.75	12.80	0.00
7	FORREST	0.00	0.00	42.25	13.63	0.00
14	HODGSON	0.00	0.00	37.25	17.25	0.00
6	CLARK 63	0.00	0.00	41.75	17.13	0.00
4	CUTLER 71	0.00	0.00	41.25	17.10	0.00
15	HARK	0.00	0.00	38.75	14.85	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	0.00	43.75	16.59	0.00
COEFFICIENT OF VARIATION		0.00	0.00	5.55	0.53	0.00
5% LSC VARIETY MEANS (*****=NS)		0.00	0.00	25.37%	6.41%	0.00%
		0.00	0.00	*****	1.51	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD	KG/HA	0.00	0.00	0.17	0.32++	0.00
DAYS TO	FLOWER	0.00	0.00	0.00	0.00	0.00
DAYS TO	MATURITY	0.00	0.00	0.00	0.00	0.00
NODULE	NUMBER 1	0.00	0.00	0.14	-0.02	0.00
NODULE	NUMBER 2	0.00	0.00	0.07	-0.06	0.00
NODULE	WEIGHT 1	0.00	0.00	-0.08	0.05	0.00
NODULE	WEIGHT 2	0.00	0.00	0.27+	0.11	0.00
PLANT	HEIGHT	0.00	0.00	0.22	-0.32+	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	0.00	0.00	0.00
PODS PER	PLANT	0.00	0.00	1.00	-0.10	0.00
100 SEED	WEIGHT	0.00	0.00	-0.10	1.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 171 EXPERIMENT 72 YEAR 1976

REGION - MIDDLE EAST
 SITE - ABU-GHRAIB
 LATITUDE 33 DEG. N
 COOPERATOR - SALIH M. DAMIRGI
 DATE PLANTED - MAY 19, 1976
 SOIL TYPE - SAND 17.6%, SILT 72.2%, CLAY 10.2%, PH 7.9
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0
 NUMBER OF IRRIGATIONS - 18
 SUBSTITUTE VARIETY - LEE

COUNTRY - IRAQ
 ELEVATION - 300 M
 LONGITUDE - 44 DEG. 15 MIN. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSOM	1874.96	70.00	161.00	54.75	48.00	1.01	0.94	54.25	1.75		
11	DAVIS	1627.83	66.00	144.00	64.25	83.25	2.01	2.98	67.50	1.25		
15	COLUMBUS	1595.32	33.00	125.50	23.50	44.50	0.16	0.92	73.75	1.25		
1	CALLAND	1473.63	35.00	118.25	26.25	38.75	0.48	0.98	70.25	1.25		
7	CUTLER 71	1391.11	35.00	115.75	22.75	46.25	0.23	0.73	60.50	1.75		
8	BOSSIER	1337.77	70.00	165.75	21.25	22.25	0.42	0.58	60.00	1.75		
9	WILLIAMS	1216.91	33.00	109.50	31.75	29.75	0.22	0.35	60.00	1.50		
6	PICKETT 71	1194.82	66.00	163.50	44.75	39.00	0.63	0.57	56.25	1.50		
5	HILL	947.27	52.00	131.50	15.00	46.75	0.48	1.22	46.00	1.00		
12	FORREST	858.09	52.00	133.50	14.75	27.75	0.27	0.46	46.75	1.00		
16	LEE	858.09	66.00	158.75	11.25	42.50	0.33	1.04	45.00	1.50		
10	CLARK 63	785.57	33.00	118.50	13.75	23.50	0.13	0.39	59.25	1.00		
3	BRAGG	690.97	70.00	158.75	14.75	10.75	0.19	0.32	75.25	1.25		
2	WOODWORTH	515.10	35.00	115.75	11.25	10.75	0.13	0.15	61.25	1.00		
13	WELLS	413.00	33.00	116.25	34.50	49.00	0.38	1.10	46.00	1.00		
14	BEESON	205.04	33.00	111.00	11.25	14.00	0.06	0.32	36.00	1.00		
GRAND MEAN		1061.59	48.88	134.20	25.98	36.05	0.45	0.82	57.38	1.30		
STANDARD ERROR OF A VARIETY MEAN		198.42	0.00	2.53	13.47	16.20	0.36	0.54	4.82	0.23		
COEFFICIENT OF VARIATION		37.38%	0.00%	3.77%	103.70%	89.87%	163.85%	131.26%	16.82%	35.81%		
5% LSD VARIETY MEANS (*****=NS)		565.17	0.00	7.20	*****	*****	*****	*****	13.74	*****		
C O R R E L A T I O N S												
(+ - PROB=.05 +- - PROB=.01)												
YIELD	KG/HA	1.00	0.25+	0.25+	0.40++	0.35++	0.35++	0.28+	0.48++	0.42++		
DAYS TO FLOWER	0.25+	0.25+	1.00	0.94++	0.20	0.10	0.30+	0.16	0.04	0.26+		
DAYS TO MATURITY	0.25+	0.25+	0.94++	1.00	0.17	0.05	0.22	0.09	0.07	0.31+		
NODULE NUMBER 1	0.40++	0.20	0.20	1.00	0.74++	0.85++	0.85++	0.65++	0.21	0.07		
NODULE NUMBER 2	0.35++	0.10	0.05	0.05	0.74++	1.00	0.77++	0.92++	0.23	0.11		
NODULE WEIGHT 1	0.35++	0.30+	0.30+	0.22	0.85++	0.77++	1.00	0.84++	0.19	-0.01		
NODULE WEIGHT 2	0.28+	0.16	0.09	0.09	0.65++	0.92++	0.84++	1.00	0.21	0.01		
PLANT HEIGHT	0.48++	0.04	0.07	0.07	0.21	0.23	0.19	0.21	0.01	0.17		
LODGING	0.42++	0.26+	0.26+	0.31+	0.07	0.11	-0.01	0.01	0.17	1.00		
SHATTER	-0.59++	-0.42++	-0.42++	-0.40++	-0.10	-0.15	-0.16	-0.12	-0.31+	-0.33++		
HARVEST	0.25+	0.94++	0.94++	0.98++	0.18	0.06	0.22	0.09	0.07	0.29+		
PLANTS PER PLANT	0.53++	0.53++	0.53++	0.60++	0.12	0.07	0.16	0.10	0.43++	0.47++		
100 SEED WEIGHT	0.55++	0.55++	0.55++	0.29+	0.29+	0.24	0.26+	0.24	0.46++	0.30+		
QUALITY OF SEED	-0.57++	-0.45++	-0.45++	-0.44++	-0.22	-0.09	-0.18	-0.04	-0.11	-0.35++		

TABLE 171 EXPERIMENT 72 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	RANSOM	1.00	254.00	7.70	16.40	1.25	39.5	22.0
11	DAVIS	1.00	233.00	9.95	15.50	2.00	41.4	21.0
15	COLUMBUS	1.00	216.00	8.57	15.43	3.25	41.5	20.8
1	CALLAND	1.00	210.00	8.62	15.70	3.50	43.7	19.7
7	CUTLER 71	1.00	205.00	6.00	14.55	2.25	39.9	22.2
8	BOSSIER	1.00	256.75	11.48	13.43	1.75	43.3	18.0
9	WILLIAMS	1.00	209.50	4.90	13.53	1.00	42.1	21.1
6	PICKETT 71	1.00	254.00	10.10	13.80	1.00	42.8	19.1
5	HILL	1.00	224.50	5.10	12.20	2.75	40.7	19.0
12	FORREST	1.25	223.00	4.95	9.82	3.00	41.0	20.4
16	LEE	1.00	250.00	8.05	12.25	2.00	42.7	19.6
10	CIARK 63	2.00	209.50	4.82	13.98	2.25	43.9	20.7
3	BRAGG	1.50	250.00	8.45	11.78	3.50	37.4	22.7
2	WOODWORTH	2.00	206.75	6.45	13.60	3.75	43.0	19.9
13	WELLS	3.25	208.25	3.43	12.63	4.75	42.1	21.7
14	BEESON	3.25	202.25	3.83	14.03	4.00	39.1	19.9
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.45	225.78	7.02	13.66	2.63		
COEFFICIENT OF VARIATION		0.20	2.23	1.03	0.96	0.26		
5% LSD VARIETY MEANS (*****=NS)		27.05%	1.98%	29.20%	13.98%	19.57%		
		0.56	6.36	2.92	2.72	0.73		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.59++	0.25+	0.53++	0.55++	-0.57++		
DAYS TO FLOWER		-0.42++	0.94++	0.53++	-0.09	-0.45++		
DAYS TO MATURITY		-0.40++	0.98++	0.60++	-0.01	-0.44++		
NODULE NUMBER 1		-0.10	0.18	0.12	0.29+	-0.22		
NODULE NUMBER 2		-0.15	0.06	0.07	0.24	-0.09		
NODULE WEIGHT 1		-0.16	0.22	0.16	0.26+	-0.18		
NODULE WEIGHT 2		-0.12	0.09	0.10	0.24	-0.04		
PLANT	HEIGHT	-0.31+	0.07	0.43++	0.46++	-0.11		
LODGING		-0.33++	0.29+	0.47++	0.30+	-0.35++		
SHATTER		1.00	-0.42++	-0.51++	-0.17	0.58++		
PLANTS	HARVEST	-0.42++	1.00	0.50++	-0.03	-0.47++		
PODS PER	PLANT	-0.51++	0.56++	1.00	0.41+	-0.36++		
100 SEED	WEIGHT	-0.17	-0.03	0.41++	1.00	-0.20		
QUALITY	OF SEED	0.58++	-0.47++	-0.36++	-0.20	1.00		

TABLE 172 EXPERIMENT 81 YEAR 1976

REGION - MIDDLE EAST COUNTRY - ISRAEL
 SITE - BET-DAGAN ELEVATION - 80 M
 LATITUDE - 32 DEG. N LONGITUDE - 34 DEG. 50 MIN. E
 COOPERATORS - B. RETIG, V. LEHRER DATE HARVESTED - AUGUST, 1976
 DATE PLANTED - APRIL 4, 1976
 SOIL TYPE - SAND 40%, SILT 26%, CLAY 34%, PH 7.6
 FERTILIZER USED (KG/HA) - N 41.0, P 55.0, K 100.0
 AMOUNT OF MOISTURE - 420 MM
 NUMBER OF IRRIGATIONS - 8 (420 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
5	WILLIAMS	4721.78	44.25	123.00	0.00	0.00	0.00	0.00	94.25	1.25
13	AMSOY 71	4446.72	43.00	116.50	0.00	0.00	0.00	0.00	94.65	3.50
15	HARK	4446.72	43.00	115.75	0.00	0.00	0.00	0.00	88.87	2.50
9	BEESON	4417.55	43.00	120.25	0.00	0.00	0.00	0.00	80.32	1.75
1	CALLAND	4413.38	43.75	131.00	0.00	0.00	0.00	0.00	105.75	4.75
4	CUTLER 71	4325.86	45.00	128.75	0.00	0.00	0.00	0.00	117.83	3.50
8	WELLS	4250.85	43.00	115.75	0.00	0.00	0.00	0.00	70.77	1.50
2	WOODWORTH	3959.12	44.00	115.00	0.00	0.00	0.00	0.00	80.75	1.50
6	CLARK 63	3838.27	45.00	127.50	0.00	0.00	0.00	0.00	104.63	3.75
16	STEELE	3804.93	43.00	105.00	0.00	0.00	0.00	0.00	70.27	1.25
12	CORSOY	3454.86	43.00	108.25	0.00	0.00	0.00	0.00	70.27	1.50
14	HODGSON	2692.20	42.00	105.75	0.00	0.00	0.00	0.00	62.25	1.00
11	ESSEX	2588.02	81.00	158.25	0.00	0.00	0.00	0.00	101.38	1.50
10	COLUMBUS	2567.18	45.00	133.75	0.00	0.00	0.00	0.00	110.38	2.50
7	FORREST	2542.17	84.25	160.50	0.00	0.00	0.00	0.00	111.88	2.00
3	HILL	2533.84	84.00	158.50	0.00	0.00	0.00	0.00	107.98	1.75
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		3687.72	51.02	126.47	0.00	0.00	0.00	0.00	92.01	2.22
COEFFICIENT OF VARIATION		240.07	0.27	1.43	0.00	0.00	0.00	0.00	4.45	0.44
5% LSD VARIETY MEANS (*****=NS)		13.02%	1.07%	2.26%	0.00%	0.00%	0.00%	0.00%	9.66%	39.28%
		683.82	0.78	4.08	0.00	0.00	0.00	0.00	12.67	1.24
CORRELATIONS (+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	-0.59++	-0.45++	0.00	0.00	0.00	0.00	-0.03	0.40++
DAYS TO FLOWER		-0.59++	1.00	0.89++	0.00	0.00	0.00	0.00	0.43++	-0.15
DAYS TO MATURITY		-0.45++	0.89++	1.00	0.00	0.00	0.00	0.00	0.13	0.09++
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	-0.03	0.43++	0.69++	0.00	0.00	0.00	0.00	0.00	0.00
LODGING		0.40++	-0.15	0.13	0.00	0.00	0.00	0.00	1.00	0.58++
SHATER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.52++	-0.58++	-0.59++	0.00	0.00	0.00	0.00	-0.32+	0.03
PODS PER	PLANT	-0.08	0.31+	0.38++	0.00	0.00	0.00	0.00	0.24	0.08
100 SEED	WEIGHT	0.80++	-0.67++	-0.59++	0.00	0.00	0.00	0.00	-0.21	0.29+
QUALITY	OF SEED	0.45++	-0.24	-0.13	0.00	0.00	0.00	0.00	0.03	0.36++

TABLE 172 EXPERIMENT 81 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
5	WILLIAMS	1.00	199.50	40.05	19.68	1.75	41.1	22.9
13	AMSOY 71	1.00	179.25	43.20	18.58	3.50	38.6	22.2
15	HARK	1.00	207.50	45.85	17.88	2.25	40.4	22.3
9	BEESON	1.00	201.00	43.03	17.90	3.75	40.1	21.9
1	CALLAND	1.00	197.50	47.35	17.68	3.00	39.2	21.8
4	CUTLER 71	1.00	199.75	46.35	18.20	3.25	41.1	22.6
8	WELLS	1.00	221.00	49.80	15.20	3.25	40.5	23.2
2	WOODWORTH	1.00	222.50	40.58	15.68	2.00	38.1	22.7
6	CLARK 63	1.00	189.75	40.53	16.48	2.25	40.4	22.1
16	STEELE	1.00	200.50	39.43	16.58	2.00	39.9	22.4
12	CORSOY	1.00	186.25	54.20	17.10	2.00	40.6	22.2
14	HODGSON	1.00	190.25	34.88	17.00	1.75	40.3	23.8
11	ESSEX	1.00	134.25	61.70	12.93	1.50	42.3	20.5
10	COLUMBUS	1.00	165.00	51.45	12.43	1.75	41.0	20.8
7	FORREST	1.00	160.50	45.95	12.83	2.50	42.8	19.8
3	HILL	1.00	166.50	51.03	12.30	2.00	42.4	19.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	188.81	45.96	16.15	2.41		
COEFFICIENT OF VARIATION		0.00	9.70	4.74	0.51	0.24		
5% LSD VARIETY MEANS (*****=NS)		0.00%	10.27%	20.61%	6.29%	20.01%		
		0.00	27.62	13.49	1.45	0.69		
C O R R E L A T I O N S (+ - PROB=.05) (+ - PROB=.01)								
YIELD	KG/HA	0.00	0.52++	-0.08	0.80++	0.45++		
DAYS TO FLOWER		0.00	-0.58++	0.31+	-0.67++	-0.24		
DAYS TO MATURITY		0.00	-0.59++	0.38++	-0.59++	-0.13		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	-0.32+	0.24	-0.21	0.03		
LODGING		0.00	0.03	0.08	0.29+	0.36++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.43++	0.41++	0.23		
PODS PER PLANT		0.00	-0.43++	1.00	-0.24	-0.11		
100 SEED WEIGHT		0.00	0.41++	-0.24	1.00	0.33++		
QUALITY OF SEED		0.00	0.23	-0.11	0.33++	1.00		

TABLE 173 EXPERIMENT 82 YEAR 1976

REGION - MIDDLE EAST COUNTRY - ISRAEL
 SITE - BET-DAGAN ELEVATION - 80 M
 LATITUDE - 32 DEG. N LONGITUDE - 34 DEG. 50 MIN. E
 COOPERATORS - B. RETIG, V. LEHRER
 DATE PLANTED - JUNE 7, 1976 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - SAND 40%, SILT 26%, CLAY 34%, FH 7.6
 FERTILIZER USED (KG/HA) - P 26.0, K 25.0
 AMOUNT OF MOISTURE - 540 MM
 NUMBER OF IRRIGATIONS - 9 (540 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	IODGING
1	CALLAND	4155.00	27.00	104.50	0.00	0.00	0.00	0.00	108.25	5.00
13	AMSOY 71	4054.98	28.50	96.25	0.00	0.00	0.00	0.00	87.00	2.50
8	WELLS	3984.13	25.75	94.50	0.00	0.00	0.00	0.00	80.75	1.00
9	BEESON	3779.92	26.75	99.25	0.00	0.00	0.00	0.00	90.50	3.75
5	WILLIAMS	3775.75	29.25	99.50	0.00	0.00	0.00	0.00	91.25	1.50
14	HODGSON	3729.91	25.25	91.25	0.00	0.00	0.00	0.00	69.75	1.00
4	CUTLER 71	3709.07	32.75	100.25	0.00	0.00	0.00	0.00	103.50	3.00
2	WOODWORTH	3654.90	29.50	94.50	0.00	0.00	0.00	0.00	84.25	1.75
6	CLARK 63	3596.55	32.50	99.25	0.00	0.00	0.00	0.00	91.75	3.25
12	CORSOY	3525.70	26.25	95.50	0.00	0.00	0.00	0.00	74.25	2.00
15	HARK	3521.54	25.25	96.50	0.00	0.00	0.00	0.00	77.50	2.75
10	COLUMBUS	3500.70	32.25	106.50	0.00	0.00	0.00	0.00	107.50	2.25
16	STEELE	3421.52	26.00	89.50	0.00	0.00	0.00	0.00	70.75	1.00
11	ESSEX	2654.70	52.75	112.25	0.00	0.00	0.00	0.00	91.50	2.00
3	HILL	2467.16	54.75	111.00	0.00	0.00	0.00	0.00	109.00	3.25
7	FORREST	2196.27	55.00	114.50	0.00	0.00	0.00	0.00	105.25	3.25
GRAND MEAN		3482.99	33.09	100.31	0.00	0.00	0.00	0.00	90.17	2.45
STANDARD ERROR OF A VARIETY MEAN		137.63	0.71	1.17	0.00	0.00	0.00	0.00	5.81	0.57
COEFFICIENT OF VARIATION		7.90%	4.27%	2.33%	0.00%	0.00%	0.00%	0.00%	12.88%	46.26%
5% LSD VARIETY MEANS (*****=NS)		392.03	2.01	3.33	0.00	0.00	0.00	0.00	16.54	1.62
C O R R E L A T I O N S										
(+ - PROB=-.05 ++ - PROB=-.01)										
YIELD	KG/HA	1.00	-0.83++	-0.60++	0.00	0.00	0.00	0.00	-0.13	0.08
DAYS TO FLOWER		-0.83++	1.00	0.82++	0.00	0.00	0.00	0.00	0.41++	0.15
DAYS TO MATURITY		-0.60++	0.82++	1.00	0.00	0.00	0.00	0.00	0.60++	0.40++
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT		-0.13	0.41++	0.60++	0.00	0.00	0.00	0.00	1.00	0.54++
LODGING		0.08	0.15	0.40++	0.00	0.00	0.00	0.00	0.54++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.77++	-0.53++	-0.48++	0.00	0.00	0.00	0.00	-0.07	0.09
PLANTS PER		-0.70++	0.74++	0.63++	0.00	0.00	0.00	0.00	0.30+	0.24
PODS PER		0.82++	-0.85++	-0.63++	0.00	0.00	0.00	0.00	-0.19	0.09
100 SEED		0.13	-0.08	-0.02	0.00	0.00	0.00	0.00	0.00	0.23
QUALITY	OF SEED									

TABLE 173 EXPERIMENT 82 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	1.00	207.25	47.50	17.23	2.00	39.7	21.0
13	AMSOY 71	1.00	205.25	42.50	17.33	2.50	37.7	23.3
8	WELLS	1.00	212.00	33.25	15.85	2.75	41.3	22.3
9	BEESON	1.00	192.25	41.50	19.28	3.25	42.6	24.5
5	WILLIAMS	1.00	189.00	40.00	17.00	1.25	40.6	22.5
14	HODGSON	1.00	194.00	40.75	16.00	1.50	37.9	23.6
4	CUTLER 71	1.00	185.75	50.50	17.78	2.25	41.6	23.5
2	WOODWORTH	1.00	206.75	47.00	15.20	1.25	38.9	22.7
6	CLARK 63	1.00	202.00	47.50	16.18	1.25	42.1	22.3
12	CORSOY	1.00	189.50	53.25	14.63	2.25	39.2	20.8
15	HARK	1.00	170.00	49.00	16.40	1.75	39.9	21.6
10	COLUMBUS	1.00	182.50	57.25	13.00	1.00	40.7	21.4
16	STEELE	1.00	196.25	45.75	16.88	2.00	41.5	21.8
11	ESSEX	1.00	172.00	69.50	8.97	1.25	39.7	20.1
3	HILL	1.00	166.75	72.25	9.45	2.00	41.2	19.7
7	FORREST	1.00	150.25	73.25	8.90	2.50	38.3	21.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	188.84	50.67	15.00	1.92		
COEFFICIENT OF VARIATION		0.00	9.00	4.70	0.55	0.22		
5% LSD VARIETY MEANS (*****=NS)		0.00	25.63	18.57%	7.36%	23.05%		
CORRELATIONS (+ - PROB=-.05) ++ - PROB=-.01)								
YIELD KG/HA		0.00	0.77++	-0.70++	0.82++	0.13		
DAYS TO FLOWER		0.00	-0.53++	0.74++	-0.85++	-0.08		
DAYS TO MATURITY		0.00	-0.48++	0.63++	-0.63++	-0.02		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	-0.07	0.30+	-0.19	0.00		
LODGING		0.00	0.09	0.24	0.09	0.23		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.54++	0.49++	0.07		
PODS PER PLANT		0.00	-0.54++	1.00	-0.68++	-0.12		
100 SEED WEIGHT		0.00	0.49++	-0.68++	1.00	0.28+		
QUALITY OF SEED		0.00	0.07	-0.12	0.28+	1.00		

TABLE 174 EXPERIMENT 143 YEAR 1976

REGION - MIDDLE EAST COUNTRY - JORDAN
 SITE - DEIR ALLA ELEVATION - 68 M
 LATITUDE - 35 DEG. 12 MIN. N LONGITUDE - 35 DEG. 36 MIN. E
 COOPERATORS - N. KATKHADA, A. HAMMUDA
 DATE PLANTED - MARCH 3, 1977 DATE HARVESTED - JULY, 1977
 SOIL TYPE - SAND 25%, SILT 35%, CLAY 40%, PH 8.0
 FERTILIZER USED (KG/HA) - N 40.0, P 40.0
 NUMBER OF IRRIGATIONS - 25

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	PICKETT 71	6534.64	51.25	183.75	0.00	0.00	0.00	0.00	49.50	0.00
15	COLUMBUS	6051.21	35.25	135.50	0.00	0.00	0.00	0.00	38.75	0.00
7	CUTLER 71	5726.14	40.00	135.50	0.00	0.00	0.00	0.00	42.75	0.00
9	WILLIAMS	5346.90	35.75	105.50	0.00	0.00	0.00	0.00	41.00	0.00
3	BRAGG	4975.99	45.00	184.50	0.00	0.00	0.00	0.00	81.00	0.00
11	DAVIS	4967.66	55.50	156.75	0.00	0.00	0.00	0.00	43.25	0.00
4	RANSOM	4596.75	46.75	185.25	0.00	0.00	0.00	0.00	80.00	0.00
10	CLARK 63	4555.08	35.00	135.75	0.00	0.00	0.00	0.00	39.50	0.00
8	BOSSIER	4121.66	78.75	188.00	0.00	0.00	0.00	0.00	82.50	0.00
13	WELLS	3959.12	55.75	135.75	0.00	0.00	0.00	0.00	45.00	0.00
12	PORREST	3784.09	45.00	125.50	0.00	0.00	0.00	0.00	62.50	0.00
14	BEESON	3634.06	35.25	135.00	0.00	0.00	0.00	0.00	38.75	0.00
16	ESSEX	3629.89	45.75	125.00	0.00	0.00	0.00	0.00	59.50	0.00
5	HILL	3559.04	59.75	187.50	0.00	0.00	0.00	0.00	77.50	0.00
2	WOODWORTH	3548.63	40.50	136.00	0.00	0.00	0.00	0.00	43.25	0.00
1	CALLAND	3065.20	39.75	135.75	0.00	0.00	0.00	0.00	41.75	0.00
	GRAND MEAN	4503.50	46.56	149.44	0.00	0.00	0.00	0.00	54.16	0.00
	STANDARD ERROR OF A VARIETY MEAN	508.12	0.82	0.40	0.00	0.00	0.00	0.00	2.73	0.00
	COEFFICIENT OF VARIATION	22.57%	3.51%	0.54%	0.00%	0.00%	0.00%	0.00%	10.09%	0.00%
	5% 1ST VARIETY MEANS (*****=NS)	1447.34	2.33	1.15	0.00	0.00	0.00	0.00	7.78	0.00
C O R R E L A T I O N S										
	YIELD	1.00	-0.10	0.10	0.00	0.00	0.00	0.00	-0.12	0.00
	KG/HA	-0.10	1.00	0.64++	0.00	0.00	0.00	0.00	0.62++	0.00
	DAYS TO FLOWER	0.10	0.64++	1.00	0.00	0.00	0.00	0.00	0.70++	0.00
	DAYS TO MATURITY	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
	PLANT HEIGHT	-0.12	0.62++	0.70++	0.00	0.00	0.00	0.00	1.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
	HARVEST	0.65++	0.05	0.29+	0.00	0.00	0.00	0.00	0.00	0.00
	PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
	PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 174 EXPERIMENT 143 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	PICKETT 71	0.00	171.25	0.00	0.00	0.00
15	COLUMBUS	0.00	162.00	0.00	0.00	0.00
7	CUTLER 71	0.00	155.00	0.00	0.00	0.00
9	WILLIAMS	0.00	153.00	0.00	0.00	0.00
3	BRAGG	0.00	167.50	0.00	0.00	0.00
11	DAVIS	0.00	152.75	0.00	0.00	0.00
4	RANSOM	0.00	164.75	0.00	0.00	0.00
10	CLARK 63	0.00	162.25	0.00	0.00	0.00
8	BOSSLER	0.00	158.25	0.00	0.00	0.00
13	WELLS	0.00	155.25	0.00	0.00	0.00
12	PORREST	0.00	147.50	0.00	0.00	0.00
14	BESON	0.00	138.25	0.00	0.00	0.00
16	ESSEX	0.00	133.75	0.00	0.00	0.00
5	HILL	0.00	144.25	0.00	0.00	0.00
2	WOODWORTH	0.00	161.00	0.00	0.00	0.00
1	CALLAND	0.00	132.75	0.00	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	153.72	0.00	0.00	0.00
COEFFICIENT OF VARIATION		0.00	7.29	0.00	0.00	0.00
5% ISI VARIETY MEANS (*****=NS)		0.00	9.48%	0.00%	0.00%	0.00%
		0.00	20.75	0.00	0.00	0.00
C O R R E L A T I O N S (+ - PROB=-.05 ++ - PROB=-.01)						
YIELD KG/HA		0.00	0.65++	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.05	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.29+	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.10	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 175

EXPERIMENT 142

YEAR 1976

REGION - MIDDLE EAST
 SITE - WADI DHULEIL
 LATITUDE - 32 DEG. 9 MIN. N
 COOPERATORS - N. KATKHUDA, M. KHUADARE
 DATE PLANTED - MARCH 9, 1977
 SOIL TYPE - SAND 36%, SILT 19%, CLAY 45%, PH 8.0
 FERTILIZER USED (KG/HA) - N 80.0, P 30.0
 NUMBER OF IRRIGATIONS - 26

COUNTRY - JORDAN
 ELEVATION - 580 M

DATE HARVESTED - JULY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	PICKETT 71	3567.38	101-25	209.00	0.00	0.00	0.00	0.00	75.00	0.00
12	FORREST	2525.50	92.00	179.75	0.00	0.00	0.00	0.00	87.50	0.00
4	RANSON	2442.15	86.00	204.50	0.00	0.00	0.00	0.00	66.25	0.00
8	BOSSIER	2287.96	109.50	205.00	0.00	0.00	0.00	0.00	92.50	0.00
5	HILL	2142.09	88.50	163.25	0.00	0.00	0.00	0.00	72.50	0.00
16	ESSEX	1956.64	92.00	179.00	0.00	0.00	0.00	0.00	76.25	0.00
15	COLUMBUS	1758.68	60.00	142.00	0.00	0.00	0.00	0.00	68.25	0.00
9	WILLIAMS	1677.42	56.50	126.00	0.00	0.00	0.00	0.00	53.75	0.00
11	DAVIS	1556.56	122.00	188.75	0.00	0.00	0.00	0.00	121.25	0.00
7	CUTLER 71	1533.64	68.50	142.00	0.00	0.00	0.00	0.00	62.50	0.00
10	CLARK 63	1235.66	59.00	124.50	0.00	0.00	0.00	0.00	57.50	0.00
1	CALLAND	1218.99	58.50	130.75	0.00	0.00	0.00	0.00	53.75	0.00
3	BRAGG	1183.57	112.00	207.00	0.00	0.00	0.00	0.00	88.25	0.00
2	WOODWORTH	1121.06	56.25	114.25	0.00	0.00	0.00	0.00	42.50	0.00
13	WELLS	950.19	51.75	112.75	0.00	0.00	0.00	0.00	33.75	0.00
14	BEESON	627.21	51.50	110.50	0.00	0.00	0.00	0.00	31.25	0.00
GRAND MEAN		1736.55	79.08	158.69	0.00	0.00	0.00	0.00	67.67	0.00
STANDARD ERROR OF A VARIETY MEAN		365.48	4.89	4.99	0.00	0.00	0.00	0.00	5.33	0.00
COEFFICIENT OF VARIATION		42.09%	12.36%	6.29%	0.00%	0.00%	0.00%	0.00%	15.76%	0.00%
5% LSD VARIETY MEANS (*****=NS)		1041.05	13.92	14.21	0.00	0.00	0.00	0.00	15.19	0.00
C O R R E L A T I O N S										
YIELD		1.00	0.49++	0.58++	0.00	0.00	0.00	0.00	0.49++	0.00
DAYS TO FLOWER		0.49++	1.00	0.89++	0.00	0.00	0.00	0.00	0.86++	0.00
DAYS TO MATURITY		0.58++	0.89++	1.00	0.00	0.00	0.00	0.00	0.74++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.49++	0.86++	0.74++	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.10	-0.22	-0.23	0.00	0.00	0.00	0.00	-0.10	0.00
PLANTS PER 100 SEED		0.60++	0.73++	0.78++	0.00	0.00	0.00	0.00	0.58++	0.00
PLANT WEIGHT		0.67++	0.27+	0.41++	0.00	0.00	0.00	0.00	0.34++	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(+ - PROB=-.05 ++ - PROB=-.01)

TABLE 175 EXPERIMENT 142 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	PICKETT 71	0.00	200.00	58.75	13.00	0.00
12	FORREST	0.00	200.00	56.75	12.00	0.00
4	RANSOM	0.00	200.00	45.75	15.00	0.00
8	BOSSIER	0.00	200.00	65.25	11.00	0.00
5	HILL	0.00	200.00	28.50	11.50	0.00
16	ESSEX	0.00	200.00	61.00	9.00	0.00
15	COLUMBUS	0.00	200.00	24.75	9.75	0.00
9	WILLIAMS	0.00	200.00	19.50	11.75	0.00
11	DAVIS	0.00	200.00	44.00	12.00	0.00
7	CUTLER 71	0.00	200.00	24.25	10.25	0.00
10	CLARK 63	0.00	200.00	20.00	8.75	0.00
1	CALLAND	0.00	200.00	19.00	10.25	0.00
3	BRAGG	0.00	198.25	49.75	7.75	0.00
2	WOODWORTH	0.00	200.00	20.25	10.00	0.00
13	WELLS	0.00	200.00	18.50	9.25	0.00
14	BEESON	0.00	200.00	19.50	8.75	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	199.89	35.97	10.63	0.00
COEFFICIENT OF VARIATION		0.00	0.30	6.40	0.83	0.00
5% ISE VARIETY MEANS (*****=NS)		0.00%	0.30%	35.56%	15.60%	0.00%
		0.00	0.84	18.22	2.36	0.00
C O R R E L A T I O N S						
		(+ - PROB=.05		++ - PROB=.01)		
YIELD	KG/HA	0.00	0.10	0.60++	0.67++	0.00
DAYS TO FLOWER		0.00	-0.22	0.73++	0.27+	0.00
DAYS TO MATURITY		0.00	-0.23	0.78++	0.41++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.10	0.58++	0.34++	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	-0.14	0.29+	0.00
PLANTS PER PLANT		0.00	-0.14	1.00	0.29+	0.00
100 SEED WEIGHT		0.00	0.29+	0.29+	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 176 EXPERIMENT 184 YEAR 1976

REGION - MIDDLE EAST
 SITE - WADI JIZAN
 LATITUDE - 17 DEG. 55 MIN. N
 COOPERATOR - M.N. BOUKHARI
 DATE PLANTED - NOVEMBER 10, 1976
 SOIL TYPE - SILTY LOAM, PH 7.7
 FERTILIZER USED (KG/HA) - N 30.0, P 44.0, K 83.0
 AMOUNT OF MOISTURE - 3 MM
 NUMBER OF IRRIGATIONS - 6

COUNTRY - SAUDI ARABIA
 ELEVATION - 83 M
 LONGITUDE - 55 DEG. 43 MIN. E
 DATE HARVESTED - JANUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	WILLIAMS	1723.26	0.00	67.00	30.25	55.00	0.00	0.00	28.25	2.00
1	CALLAND	1644.50	0.00	81.00	49.75	37.00	0.00	0.00	25.40	1.75
15	COLUMBUS	1505.72	0.00	81.50	39.50	46.75	0.00	0.00	25.25	2.00
10	CLARK 63	1447.37	0.00	80.00	36.25	43.75	0.00	0.00	26.00	1.75
11	COBB	1289.01	0.00	79.00	34.50	23.00	0.00	0.00	19.50	1.75
12	DAVIS	1163.98	0.00	79.00	39.00	26.25	0.00	0.00	19.25	1.75
16	ESSEX	1137.73	0.00	76.25	59.50	42.00	0.00	0.00	19.00	1.50
14	FORREST	1094.39	0.00	72.00	23.00	34.50	0.00	0.00	20.75	1.60
7	CUTLER 71	1062.71	0.00	80.75	30.25	35.25	0.00	0.00	24.50	2.00
5	HILL	1062.30	0.00	68.75	19.75	25.50	0.00	0.00	18.75	1.50
13	IMPROVED PELICAN	1050.21	0.00	75.75	21.00	31.00	0.00	0.00	26.75	1.00
3	BRAGG	1049.38	0.00	65.50	33.00	17.75	0.00	0.00	20.25	1.25
4	RANSOM	914.35	0.00	74.50	34.50	49.00	0.00	0.00	20.25	1.50
2	WOODWORTH	843.50	0.00	70.00	20.00	21.50	0.00	0.00	20.75	2.00
8	BOSSIER	789.32	0.00	74.50	41.50	40.25	0.00	0.00	17.75	1.50
6	PICKETT 71	625.12	0.00	74.75	25.25	18.00	0.00	0.00	16.75	2.00
GRAND MEAN		1150.18	0.00	75.02	33.56	34.16	0.00	0.00	21.82	1.64
STANDARD ERROR OF A VARIETY MEAN		120.95	0.00	3.23	10.97	9.88	0.00	0.00	1.46	0.20
COEFFICIENT OF VARIATION		21.03%	0.00%	8.61%	65.40%	57.86%	0.00%	0.00%	13.40%	24.39%
5% LSD VARIETY MEANS (*****NS)		344.52	0.00	9.20	*****	*****	0.00	0.00	4.16	0.57
C O R R E L A T I O N S (+ - PROB=-.05 +- - PROB=-.01)										
YIELD	KG/HA	1.00	0.00	0.30+	0.16	0.40++	0.00	0.00	0.70++	0.19
DAYS TO FLOWER	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.30+	0.00	0.00	1.00	0.19	0.30+	0.00	0.00	0.28+	0.22
NODULE NUMBER 1	0.16	0.00	0.00	0.19	1.00	0.46++	0.00	0.00	0.10	0.07
NODULE NUMBER 2	0.40++	0.00	0.00	0.30+	0.46++	1.00	0.00	0.00	0.47++	0.20
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	0.70++	0.00	0.28+	0.10	0.47++	0.00	0.00	1.00	0.06
LODGING	0.19	0.00	0.00	0.22	0.07	0.20	0.00	0.00	0.06	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.43++	0.00	0.00	-0.19	-0.03	-0.22	0.00	0.00	0.19	-0.15
PODS PER PLANT	0.45++	0.00	0.00	0.21	0.03	0.57++	0.00	0.00	0.54++	0.21
100 SEED WEIGHT	0.39++	0.00	0.00	0.26+	0.09	0.20	0.00	0.00	0.16	0.33++
QUALITY OF SEED	-0.35++	0.00	0.00	-0.07	0.04	0.01	0.00	0.00	-0.35++	-0.27+

TABLE 176 EXPERIMENT 184 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	WILLIAMS	1.00	254.00	16.15	19.50	1.00	43.1	20.3
1	CALLAND	1.00	268.75	11.33	23.00	1.00	41.6	19.3
15	COLUMBUS	1.00	215.75	16.85	19.75	1.25	43.3	20.3
10	CLARK 63	1.00	222.75	13.70	18.75	1.00	42.8	19.3
11	COBB	1.00	189.00	12.50	20.00	2.00	41.9	20.7
12	DAVIS	1.00	208.25	9.40	19.25	1.50	41.3	20.6
16	ESSEX	1.00	234.25	12.30	17.25	2.00	42.8	20.0
14	FORREST	1.00	209.00	10.15	16.25	2.00	40.6	21.6
7	CUTLER 71	1.00	146.75	15.58	21.00	1.00	42.4	21.0
5	HILL	1.00	241.75	10.08	18.25	1.00	40.7	20.3
13	IMPROVED PELICAN	1.00	212.25	13.73	15.25	2.00	43.2	21.8
3	BRAGG	1.00	248.25	11.00	18.75	2.00	42.5	19.6
4	RANSOM	1.00	155.75	13.65	21.25	2.25	41.1	24.8
2	WOODWORTH	1.00	211.25	11.53	17.00	1.00	41.2	20.2
8	BOSSIER	1.00	130.00	14.20	18.50	1.75	44.3	20.5
6	PICKETT 71	1.00	166.50	7.35	18.00	2.00	42.1	20.0

GRAND MEAN
STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% LST VARIETY MEANS (*****=NS)

18.86
1.55
0.13
17.25%
0.38

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
YIELD	0.00	0.43++	0.45++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.35++
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	-0.19	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.07
NODULE NUMBER 1	0.00	-0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
NODULE NUMBER 2	0.00	-0.22	0.57++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.19	0.54++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.35++
LODGING	0.00	-0.15	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27+
SHATTER	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	-0.26+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.33++
PODS PER PLANT	0.00	-0.26+	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.05
100 SEED WEIGHT	0.00	-0.07	0.35++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15
QUALITY OF SEED	0.00	-0.33++	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00

TABLE 177

EXPERIMENT 110

YEAR 1976

REGION - NORTH AMERICA
 SITE - URBANA, ILLINOIS
 LATITUDE - 40 DEG. 7 MIN. N
 COOPERATOR - BOB DUNKER
 DATE PLANTED - MAY 24, 1976
 FERTILIZER USED (KG/HA) - P 35.0, K 66.0
 AMOUNT OF MOISTURE - 494 MM

COUNTRY - U.S.A.
 ELEVATION - 226 M
 LONGITUDE - 88 DEG. 13 MIN. W

DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	WILLIAMS	3636.43	40.00	123.00	0.00	0.00	0.00	0.00	0.00	99.25	2.00
3	CUTLER 71	3590.40	48.00	130.00	0.00	0.00	0.00	0.00	0.00	97.25	2.00
2	WOODWORTH	3259.07	39.00	119.00	0.00	0.00	0.00	0.00	0.00	102.75	1.50
6	WELLS	3008.86	37.00	106.00	0.00	0.00	0.00	0.00	0.00	95.00	1.00
11	HODGSON	2960.55	32.00	99.00	0.00	0.00	0.00	0.00	0.00	80.00	1.00
13	STEELE	2904.04	30.00	98.00	0.00	0.00	0.00	0.00	0.00	82.50	1.25
12	HARK	2888.09	33.00	111.75	0.00	0.00	0.00	0.00	0.00	94.75	1.25
8	COLUMBUS	2742.70	54.00	131.50	0.00	0.00	0.00	0.00	0.00	97.00	2.00
1	CALLAND	2661.12	42.00	116.25	0.00	0.00	0.00	0.00	0.00	94.50	2.00
10	ANSOY 71	2608.26	38.00	111.00	0.00	0.00	0.00	0.00	0.00	97.25	1.50
5	CLARK 63	2597.77	43.00	128.00	0.00	0.00	0.00	0.00	0.00	98.75	2.00
7	BESON	2563.59	37.00	112.00	0.00	0.00	0.00	0.00	0.00	99.75	1.75
9	CORSOY	2507.54	37.00	106.50	0.00	0.00	0.00	0.00	0.00	88.00	1.75
14	SWIFT	2359.87	31.00	95.00	0.00	0.00	0.00	0.00	0.00	79.75	2.25
15	ALTONA	2089.16	26.00	92.00	0.00	0.00	0.00	0.00	0.00	64.50	2.00
GRAND MEAN											
2825.16											
37.80											
111.93											
0.00											
0.00%											
1.34%											
2.14											
STANDARD ERROR OF A VARIETY MEAN											
140.05											
COEFFICIENT OF VARIATION											
9.91%											
5% LSC VARIETY MEANS (*****=NS)											
399.71											
CORRELATIONS											
(+ - PROB=.05 ++ - PROB=.01)											
YIELD	KG/HA	1.00	0.34++	0.46++	0.00	0.00	0.00	0.00	0.00	0.47++	-0.16
DAYS TO FLOWER	1.00	0.34++	1.00	0.92++	0.00	0.00	0.00	0.00	0.00	0.65++	0.27+
DAYS TO MATURITY	0.46++	0.92++	1.00	0.92++	0.00	0.00	0.00	0.00	0.00	0.74++	0.26+
NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT	HEIGHT	0.47++	0.65++	0.74++	0.00	0.00	0.00	0.00	1.00	0.00	0.00
LODGING	-0.16	0.27+	0.26+	0.26+	0.00	0.00	0.00	0.00	0.00	1.00	-0.01
SHATTER	-0.31+	-0.30+	-0.34++	-0.34++	0.00	0.00	0.00	0.00	0.00	-0.01	1.00
HARVEST	-0.08	0.02	-0.06	-0.06	0.00	0.00	0.00	0.00	0.00	-0.34++	0.30+
PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.33+	0.22
PODS PER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED	0.33++	-0.11	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY	OF SEED	-0.53++	-0.50++	-0.51++	0.00	0.00	0.00	0.00	0.00	-0.11	-0.04
										-0.28+	-0.12

TABLE 177 EXPERIMENT 110 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	WILLIAMS	1.00	199.75	0.00	17.00	1.00	39.8	19.9
3	CUTLER 71	1.00	203.50	0.00	16.75	1.25	43.4	20.3
2	WOODWORTH	1.00	185.50	0.00	14.88	1.00	40.7	20.2
6	WELLS	1.00	210.50	0.00	15.50	2.00	39.3	20.0
11	HODGSON	1.00	198.50	0.00	15.63	1.75	41.8	21.4
13	STEELE	1.00	204.75	0.00	15.88	1.75	42.8	20.6
12	HARK	1.00	177.00	0.00	15.63	2.00	39.2	19.4
8	COLUMBUS	1.00	198.25	0.00	13.88	1.00	45.4	18.3
1	CALLAND	1.00	201.25	0.00	16.38	2.00	41.6	19.4
10	ANSOY 71	1.00	201.00	0.00	15.13	2.00	40.4	19.6
5	CLARK 63	1.00	210.50	0.00	13.63	2.00	43.6	19.9
7	BEESON	1.00	182.75	0.00	17.38	2.00	41.8	19.5
9	CORSOY	1.25	213.25	0.00	14.13	1.75	40.9	19.7
14	SWIFT	1.25	207.00	0.00	13.50	2.00	41.2	20.9
15	ALTONA	1.50	203.50	0.00	16.38	2.00	43.2	19.9
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.07	199.80	0.00	15.44	1.70		
COEFFICIENT OF VARIATION		0.12	7.96	0.00	0.62	0.13		
5% LSD VARIETY MEANS (*****=NS)		21.62% *****	7.97% *****	0.00	7.97% 1.76	15.55% 0.38		
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)								
YIELD	KG/HA	-0.31+	-0.08	0.00	0.33++	-0.53++		
DAYS TO FLOWER		-0.30+	0.02	0.00	-0.11	-0.50++		
DAYS TO MATURITY		-0.34++	-0.06	0.00	-0.01	-0.51++		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT		0.00	0.00	0.00	0.00	0.00		
LODGING		-0.34++	-0.33+	0.00	0.11	-0.28+		
SHATTER		0.30+	0.22	0.00	-0.04	-0.12		
HARVEST		1.00	-0.03	0.00	-0.05	0.17		
PLANTS		-0.03	1.00	0.00	-0.23	0.09		
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00		
100 SEED WEIGHT		-0.05	-0.23	0.00	1.00	0.06		
QUALITY OF SEED		0.17	0.09	0.00	0.06	1.00		

TABLE 178

EXPERIMENT 192

YEAR 1976

REGION - OCEANIA
 SITE - BOURAIL
 LATITUDE - 21 DEG. S
 COOPERATOR - ROBERT ARRIGHI
 DATE PLANTED - DECEMBER 7, 1976
 SOIL TYPE - SAND, PH 6.8
 FERTILIZER USED (KG/HA) - N 35.0, P 76.5, K 51.5
 AMOUNT OF MOISTURE - 609 MM
 NUMBER OF IRRIGATIONS - 7

COUNTRY - NEW CALEDONIA
 ELEVATION - 0 M
 LONGITUDE - 166 DEG. E
 DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
15	ESSEX	3770.34	25.00	114.00	31.50	220.75	0.10	1.67	50.10	1.00
1	CALLAND	3401.51	19.00	103.25	10.75	94.25	0.02	0.75	60.35	1.25
10	CLARK 63	3327.75	20.00	92.00	35.25	102.50	0.04	0.84	57.75	1.25
9	WILLIAMS	3271.90	19.00	87.25	30.00	103.75	0.05	1.03	54.60	1.25
7	CUTLER 71	3121.46	19.00	87.50	49.75	144.00	0.09	1.44	62.80	1.25
14	COLUMBUS	3059.36	20.75	95.50	45.25	135.25	0.07	1.08	66.27	1.50
2	WOODWORTH	2950.59	19.00	72.50	15.75	68.50	0.03	0.70	53.40	2.00
5	HILL	2946.01	31.50	92.00	21.25	60.75	0.05	0.69	47.55	2.00
4	RANSOM	2941.00	27.25	128.00	27.75	280.00	0.10	2.22	50.55	1.00
6	PICKETT 71	2880.99	29.00	131.00	19.75	79.00	0.06	1.04	45.30	1.00
13	FORREST	2776.39	29.00	114.00	53.00	142.25	0.19	2.00	52.05	1.00
12	DAVIS	2739.30	32.25	127.00	72.25	229.25	0.25	2.84	59.10	1.00
8	BOSSIER	1939.97	29.00	127.00	50.75	145.25	0.17	1.92	52.45	1.00
3	BAGG	1652.00	28.00	131.00	39.50	165.75	0.08	1.41	51.35	1.25
11	COBB	641.79	34.00	132.00	40.50	131.50	0.16	2.52	59.85	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
(+ - PROB=-.05 +- - PROB=-.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.52++								
DAYS TO MATURITY		-0.44++								
NODULE NUMBER 1		-0.15								
NODULE NUMBER 2		0.05								
NODULE WEIGHT 1		0.21								
NODULE WEIGHT 2		0.26+								
PLANT HEIGHT		0.24								
LOGGING		0.43++								
SHATTER		0.37++								
PLANTS PER 100 SEED		0.65++								
QUALITY OF SEED		0.74++								
PLANTS HARVEST		0.54++								
PODS PER PLANT		1.00								
100 SEED WEIGHT		0.03								
QUALITY OF SEED		0.41++								

TABLE 178 EXPERIMENT 192 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
15	ESSEX	1.00	276.00	29.90	18.25	2.00	40.1	22.1
1	CALLAND	1.00	282.75	18.35	21.50	2.00	39.5	22.6
10	CLARK 63	1.00	262.00	20.28	19.00	2.00	39.8	23.3
9	WILLIAMS	1.00	270.25	16.10	20.75	1.00	39.2	23.8
7	CUTLER 71	1.00	237.00	18.75	17.00	2.00	40.4	23.2
14	COLUMBUS	1.00	250.25	16.53	17.75	2.00	42.3	22.3
2	WOODWORTH	1.00	303.50	17.20	17.25	1.00	36.7	23.9
5	HILL	1.00	177.75	42.58	15.75	2.00	35.5	24.0
4	RANSOM	1.00	268.75	27.08	19.50	2.00	37.1	25.0
6	PICKETT 71	1.00	212.25	37.65	16.25	3.00	39.3	24.0
13	FORREST	1.00	186.75	44.53	15.50	2.00	38.8	22.9
12	DAVIS	1.00	237.25	25.88	18.00	3.00	40.6	22.8
8	BOSSIER	1.00	141.75	41.88	12.75	3.00	42.3	21.5
3	BRAGG	1.00	281.00	37.18	15.50	3.00	40.1	22.6
11	COBB	1.00	202.00	40.65	11.00	3.25	37.5	24.3
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	239.28	28.97	17.05	2.22		
COEFFICIENT OF VARIATION		0.00	13.22	2.55	0.61	0.06		
5% LSE VARIETY MEANS (*****=NS)		0.00	11.05%	17.58%	7.17%	5.82%		
			37.72	7.27	1.74	0.18		
C O R R E L A T I O N S (+ - PROB=-.05 ++ - PROB=-.01)								
YIELD	KG/HA	0.00	0.16	-0.35++	0.75++	-0.56++		
DAYS TO FLOWER		0.00	-0.52++	0.78++	-0.62++	0.73++		
DAYS TO MATURITY		0.00	-0.31+	0.58++	-0.38++	0.83++		
NODULE NUMBER 1		0.00	-0.23	0.10	-0.22	0.32+		
NODULE NUMBER 2		0.00	0.07	0.07	0.12	0.20		
NODULE WEIGHT 1		0.00	-0.21	0.23	-0.29+	0.36++		
NODULE WEIGHT 2		0.00	-0.27+	0.28+	-0.29+	0.43++		
PLANT	HEIGHT	0.00	0.21	-0.50++	0.12	-0.03		
LODGING		0.00	0.20	-0.18	0.13	-0.41++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS	HARVEST	0.00	1.00	-0.60++	0.53++	-0.39++		
PODS PER PLANT		0.00	-0.60++	1.00	-0.60++	0.56++		
100 SEED WEIGHT		0.00	0.53+	-0.60++	1.00	-0.58++		
QUALITY OF SEED		0.00	-0.39+	0.56++	-0.58++	1.00		

TABLE 179 EXPERIMENT 293 YEAR 1976

REGION - OCEANIA COUNTRY - NEW HEBRIDES
 SITE - PORT VILA ELEVATION - 15 M
 LATITUDE - 17 DEG. 45 MIN. S LONGITUDE - 168 DEG. 20 MIN. E
 COOPERATOR - CONDOMINIUM DEPARTMENT OF AGRICULTURE
 DATE PLANTED - JUNE 25, 1976 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - SAND 10%, SILT 60%, CLAY 20%, PH 6.4
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 30.0
 AMOUNT OF MOISTURE - 462 MM

ENTRY NUMEEF	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	CALLAND	2580.93	24.00	102.00	0.00	137.00	0.00	3.13	41.10	1.00
8	JUPITER	2490.50	38.00	109.00	0.00	474.50	0.00	9.13	74.10	4.00
13	DAVIS	2478.83	38.00	109.00	0.00	245.25	0.00	4.52	44.50	1.00
10	WILLIAMS	2470.49	24.00	94.00	0.00	258.50	0.00	3.02	36.53	1.00
16	COLUMBUS	2379.23	24.00	106.50	0.00	222.00	0.00	4.91	40.60	1.00
11	CLARK 63	2345.47	24.00	99.00	0.00	187.25	0.00	3.12	39.10	1.00
14	IMPROVED PELICAN	2322.96	38.00	102.00	0.00	299.00	0.00	4.53	55.70	1.00
15	FORREST	2310.88	38.00	102.00	0.00	254.00	0.00	4.09	36.95	1.00
3	BRAGG	2231.28	31.00	97.00	0.00	212.00	0.00	2.85	40.40	1.00
4	RANSOM	2105.84	31.00	109.00	0.00	264.50	0.00	4.18	43.45	1.00
9	BOSSIER	2100.42	24.00	102.00	0.00	315.75	0.00	5.79	30.30	1.00
7	CUTLER 71	2094.59	24.00	108.00	0.00	211.75	0.00	3.03	42.00	1.00
6	PICKETT 71	1977.48	31.00	102.00	0.00	223.50	0.00	3.19	28.45	1.00
2	WOODWORTH	1924.55	24.00	90.00	0.00	172.00	0.00	2.20	35.05	1.00
5	HILL	1903.71	38.00	88.00	0.00	174.50	0.00	2.79	30.40	1.00
12	COBB	1413.62	31.00	102.00	0.00	211.75	0.00	4.35	37.90	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.00	0.24	0.00	0.23	0.00	0.22	0.41++	0.23
DAYS TO FLOWER		0.00	1.00	0.13	0.00	0.34++	0.00	0.32++	0.38++	0.34++
DAYS TO MATURITY		0.24	0.13	1.00	0.00	0.38++	0.00	0.51++	0.47++	0.31+
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.23	0.34++	0.38++	0.00	1.00	0.00	0.88++	0.64++	0.67++
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.22	0.32++	0.51++	0.00	0.88++	0.00	1.00	0.67++	0.72++
PLANT HEIGHT		0.41++	0.38++	0.47++	0.00	0.64++	0.00	0.72++	1.00	0.76++
LODGING		0.23	0.34++	0.31+	0.00	0.67++	0.00	0.72++	1.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.47++	-0.02	0.14	0.00	0.09	0.00	-0.01	0.06	0.02
PLANTS PER 100 SEED		0.18	0.35++	0.23	0.00	0.39++	0.00	0.44++	0.58++	0.34++
PLANT WEIGHT		0.21	-0.40++	0.30+	0.00	0.03	0.00	0.08	0.06	0.13
QUALITY OF SEED		-0.06	0.24	0.59++	0.00	0.21	0.00	0.37++	0.31+	0.20

TABLE 179 EXPERIMENT 293 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	1.00	293.00	13.20	22.91	2.00	45.8	19.9
8	JUPITER	1.00	267.00	21.25	20.89	3.25	44.5	21.6
13	DAVIS	1.00	281.50	15.68	20.42	4.75	45.6	23.3
10	WILLIAMS	1.00	296.50	12.45	21.90	1.00	43.9	21.7
16	COLUMBUS	1.00	278.75	19.65	19.96	3.00	46.3	21.4
11	CLARK 63	1.00	195.50	14.43	18.75	1.00	45.1	20.3
14	IMPROVED PELICAN	1.00	242.50	24.25	16.45	1.00	45.8	21.3
15	FORREST	1.00	272.25	15.20	18.43	1.00	41.9	23.1
3	BRAGG	1.00	290.25	15.70	22.19	1.00	44.6	21.0
4	RANSOM	1.00	289.50	15.03	20.16	5.00	44.3	26.2
9	BOSSIER	1.00	254.50	15.23	20.27	1.00	45.9	21.3
7	CUTLER 71	1.00	275.00	13.25	21.47	2.50	43.4	22.4
6	PICKETT 71	1.00	253.00	13.40	19.91	1.00	45.5	22.3
2	WOODWORTH	1.00	258.75	14.23	18.13	1.00	43.3	21.7
5	HILL	1.00	251.75	14.80	17.38	2.00	41.7	21.3
12	COBB	1.00	218.75	13.55	20.53	3.75	44.8	22.8
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	263.66	15.70	19.98	2.14		
COEFFICIENT OF VARIATION		0.00	12.94	1.66	0.28	0.25		
5% LSD VARIETY MEANS (*****=NS)		0.00%	9.81%	21.15%	2.80%	23.18%		
		0.00	36.85	4.73	0.80	0.71		
C O R R E L A T I O N S (+ - PROB=-.01)								
YIELD	KG/HA	0.00	0.47++	0.18	0.21	-0.06		
DAYS TO FLOWER		0.00	-0.02	0.35++	-0.40++	0.24		
DAYS TO MATURITY		0.00	0.14	0.23	0.30+	0.59++		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.09	0.39++	0.03	0.21		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	-0.01	0.44++	0.08	0.37++		
PLANT HEIGHT		0.00	0.06	0.58++	0.06	0.31+		
LODGING		0.00	0.02	0.34++	0.13	0.20		
SHATTER		1.00	0.00	0.00	0.00	0.00		
HARVEST		0.00	1.00	-0.23	0.38++	0.17		
PODS PER PLANT		0.00	-0.23	1.00	-0.31+	0.08		
100 SEED WEIGHT		0.00	0.38++	-0.31+	1.00	0.22		
QUALITY OF SEED		0.00	0.17	0.08	0.22	1.00		

TABLE 180 EXPERIMENT 366 YEAR 1976

REGION - OCREANIA COUNTRY - TAHITI
 SITE - PAPEETE ELEVATION - 2 M
 LATITUDE - 17 DEG. 30 MIN. S LONGITUDE - 149 DEG. 30 MIN. W
 COOPERATORS - J.L. REBOUL, R. YAU-AKUI
 DATE PLANTED - OCTOBER 15, 1976 DATE HARVESTED - JANUARY, 1977
 SOIL TYPE - SAND 43.2%, SILT 6.5%, CLAY 36.5%, PH 6.6
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 783 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	DAVIS	5288.14	37.00	113.25	150.25	351.75	0.58	0.00	62.55	4.50
3	BRAGG	5158.95	31.00	119.00	200.75	368.75	0.59	0.00	54.90	2.25
4	RANSOM	4833.47	30.25	119.00	169.25	368.75	0.69	0.00	48.15	1.25
16	COLUMBUS	4682.19	27.00	94.00	200.50	343.50	0.47	0.00	76.35	1.75
15	FORREST	4681.35	35.00	104.50	173.00	376.75	0.46	0.00	65.30	1.25
9	BOSSIER	4360.46	31.00	127.00	153.00	351.50	0.58	0.00	43.40	1.25
1	CALLAND	4164.17	26.50	95.75	149.50	212.75	0.52	0.00	88.35	2.75
6	PICKETT 71	3926.62	31.00	115.50	59.25	208.25	0.33	0.00	47.05	1.00
7	CUTLER 71	3901.20	27.00	90.50	158.25	218.00	0.33	0.00	80.20	3.00
11	CLARK 63	3788.67	27.00	88.75	125.00	186.50	0.28	0.00	79.35	3.00
5	HILL	3694.49	38.00	94.00	151.75	250.75	0.45	0.00	57.90	2.25
10	WILLIAMS	3627.81	27.00	87.00	198.00	232.75	0.59	0.00	70.65	1.50
2	WOODWORTH	3245.23	26.00	82.00	201.25	208.00	0.51	0.00	66.55	2.75
12	COBB	3158.96	32.50	128.00	191.75	364.75	0.65	0.00	48.10	1.75
8	JUPITER	2131.68	52.00	159.00	182.00	313.00	0.45	0.00	90.45	3.75
14	IMPROVED PELICAN	1278.59	45.00	148.50	181.75	414.75	0.40	0.00	141.85	5.00
GRAND MEAN										
		3870.12	32.70	110.36	165.33	298.53	0.49	0.00	70.07	2.44
STANDARD ERROR OF A VARIETY MEAN		227.07	0.55	1.93	36.96	60.49	0.11	0.00	3.34	0.49
COEFFICIENT OF VARIATION		11.73%	3.38%	3.49%	44.72%	40.52%	44.04%	0.00%	9.55%	40.10%
5% LSD VARIETY MEANS (*****=NS)		646.78	1.57	5.49	*****	*****	*****	0.00	9.53	1.39
CORRELATIONS (+ - PROB=-.05 ** - PROB=-.01)										
YIELD	KG/HA	1.00	-0.51++	-0.41++	0.03	0.09	0.21	0.00	-0.61++	-0.38++
DAYS TO FLOWER		-0.51++	1.00	0.79++	0.03	0.27+	-0.01	0.00	0.40++	0.41++
DAYS TO MATURITY		-0.41++	0.79++	1.00	0.06	0.39++	0.10	0.00	0.23	0.25+
NODULE NUMBER 1		0.03	0.03	0.06	1.00	0.69++	0.81++	0.00	0.05	0.09
NODULE NUMBER 2		0.09	0.27+	0.39++	0.69++	1.00	0.61++	0.00	0.01	0.06
NODULE WEIGHT 1		0.21	-0.01	0.10	0.81++	1.00	1.00	0.00	-0.21	-0.04
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		-0.61++	0.40++	0.23	0.05	0.01	-0.21	0.00	1.00	0.62++
LODGING		-0.38++	0.41++	0.25+	0.09	0.06	-0.04	0.00	0.62++	1.00
SHATTER		-0.32++	0.13	0.33++	0.13	0.21	0.16	0.00	-0.11	-0.01
HARVEST		0.59++	-0.59++	-0.53++	-0.07	-0.17	0.08	0.00	-0.42++	-0.17
PLANT WEIGHT		0.09	-0.08	-0.27+	-0.05	-0.05	-0.11	0.00	-0.07	-0.36++
PODS PER 100 SEED		0.51++	-0.61++	-0.71++	0.16	-0.18	0.12	0.00	-0.24	-0.19
QUALITY OF SEED		-0.20	0.01	0.25+	0.08	0.15	0.16	0.00	-0.10	-0.12

TABLE 180 EXPERIMENT 366 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
13	DAVIS	1.00	282.25	16.53	20.45	2.00	42.5	21.3
3	BRAGG	1.00	272.50	18.78	20.45	3.25	43.8	21.7
4	RANSON	1.00	284.50	17.93	21.98	3.50	43.5	21.5
16	COLUMBUS	1.00	233.50	28.02	23.93	1.75	45.9	19.2
15	FORREST	1.00	251.75	28.65	18.95	4.25	43.8	19.3
9	BOSSIER	1.00	235.00	24.70	19.45	4.25	45.6	19.2
1	CALLAND	1.00	274.75	28.03	23.95	3.00	44.6	20.5
6	PICKETT 71	1.00	266.75	16.20	19.83	3.75	45.2	21.2
7	CUTLER 71	1.00	228.75	25.80	25.10	2.50	43.8	20.3
11	CLARK 63	1.00	262.75	19.88	21.40	2.50	45.4	21.2
5	HILL	1.00	243.00	35.03	21.75	2.00	43.3	20.8
10	WILLIAMS	1.00	270.50	20.53	24.70	2.50	43.9	23.1
2	WOODWORTH	1.00	271.50	18.68	22.00	4.00	42.2	21.9
12	COBB	3.00	218.25	25.38	15.85	3.25	39.2	21.7
8	JUPITER	1.25	146.50	18.88	18.65	2.75	45.1	20.8
14	IMPROVED PELICAN	1.25	167.25	18.35	13.00	3.75	45.4	23.1
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.16	244.34	22.58	20.71	3.06		
COEFFICIENT OF VARIATION		0.09	18.76	2.53	0.79	0.41		
5% LSD VARIETY MEANS (*****=NS)		14.77%	15.35%	22.42%	7.62%	26.94%		
		0.24	53.43	7.21	2.25	1.17		
C O R R E L A T I O N S								
(+ - PROB=.05 +- - PROB=.01)								
YIELD	KG/HA	-0.32++	0.59++	0.09	0.51++	-0.20		
DAYS TO	FLOWER	0.13	-0.59++	-0.08	-0.61++	0.01		
DAYS TO	MATURITY	0.33++	-0.53++	-0.27+	-0.71++	0.25+		
NODULE	NUMBER 1	0.13	-0.07	-0.05	0.16	0.08		
NODULE	NUMBER 2	0.21	-0.17	-0.05	-0.18	0.15		
NODULE	WEIGHT 1	0.16	0.08	-0.11	0.12	0.16		
NODULE	WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
PLANT	HEIGHT	-0.11	-0.42++	-0.07	-0.24	-0.10		
LODGING		-0.01	-0.17	-0.36++	-0.19	-0.12		
SHATTER		1.00	-0.25+	0.03	-0.44++	0.13		
PLANTS	HARVEST	-0.25+	1.00	-0.23	0.37++	0.03		
PODS PER	PLANT	0.03	-0.23	1.00	0.13	-0.12		
100 SEED	WEIGHT	-0.44++	0.37++	0.13	1.00	-0.39++		
QUALITY	OF SEED	0.13	0.03	-0.12	-0.39++	1.00		

TABLE 181 EXPERIMENT 35 YEAR 1976

REGION - OCEANIA
 SITE - KAPAA, HAWAII
 LATITUDE - 21 DEG. N
 COOPERATOR - T. SEKIOKA
 DATE PLANTED - MAY 13, 1976
 SOIL TYPE - CLAY, PH 6.8
 FERTILIZER USED (KG/HA) - P 25.0, K 25.0
 AMOUNT OF MOISTURE - 722 MM
 COUNTRY - UNITED STATES
 ELEVATION - 168 M
 LONGITUDE - 160 DEG. W
 DATE HARVESTED - JUNE, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	BOSSIER	4771.37	73.50	145.00	159.75	133.75	1.26	2.08	48.75	2.00
3	BRAGG	4562.58	72.00	139.50	109.25	219.00	0.72	2.23	48.00	2.00
15	FORREST	4175.00	73.50	125.00	108.75	199.25	0.69	2.56	56.00	2.25
13	DAVIS	3674.90	56.00	143.00	124.25	152.75	1.41	2.27	63.25	2.25
5	HILL	3438.60	60.50	125.00	74.00	89.50	0.55	1.66	54.00	2.75
6	PICKETT 71	3192.72	66.50	141.75	93.00	116.50	0.53	1.56	40.25	2.00
12	COBB	3078.95	57.75	160.00	77.00	101.75	0.71	1.53	65.25	2.00
1	CALLAND	2967.68	36.00	102.00	80.00	102.50	0.47	1.36	42.75	2.00
7	CUTLER 71	2890.58	42.50	102.00	132.75	197.50	1.35	1.92	40.50	2.50
16	COLUMBUS	2844.74	36.00	108.75	81.25	159.25	0.31	1.31	51.50	2.00
10	WILLIAMS	2652.61	41.00	102.00	90.00	156.50	0.42	1.56	39.25	2.00
14	IMPROVED PELICAN	2606.77	65.25	160.00	64.75	112.00	1.54	1.12	66.75	2.75
11	CLARK 63	2594.69	36.00	102.00	103.25	124.00	0.31	1.54	41.00	2.00
8	JUPITER	2263.79	77.00	165.00	104.50	158.75	1.04	3.80	74.75	4.00
4	RANSON	1747.43	65.50	141.25	142.00	206.75	0.66	1.91	39.25	2.00
2	WOODWORTH	1572.81	36.00	102.00	66.00	109.75	0.20	1.59	33.00	2.00
GRAND MEAN										
3064.70										
STANDARD ERROR OF A VARIETY MEAN										
267.23										
COEFFICIENT OF VARIATION										
17.44%										
5% 1ST VARIETY MEANS (*****=NS)										
761.19										
10.50										
CORRELATIONS										
YIELD KG/HA										
1.00										
DAYS TO FLOWER										
0.35++										
DAYS TO MATURITY										
1.00										
NODULE NUMBER 1										
0.24										
NODULE NUMBER 2										
0.11										
NODULE WEIGHT 1										
0.19										
NODULE WEIGHT 2										
0.04										
PLANT HEIGHT										
0.20										
LODGING										
-0.21										
SHATTER										
0.00										
PLANTS HARVEST										
0.33++										
PODS PER PLANT										
0.59++										
100 SEED WEIGHT										
-0.24										
QUALITY OF SEED										
0.14										

TABLE 182 EXPERIMENT 35 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	BOSSIER	1.00	207.75	26.10	22.85	3.00	42.6	20.6
3	BRAGG	1.00	283.50	17.65	24.29	3.00	41.6	21.2
15	FORREST	1.00	266.25	27.75	18.30	3.00	39.4	22.9
13	DAVIS	1.00	218.75	18.50	22.04	3.00	39.8	23.0
5	HILL	1.00	321.50	20.55	19.45	2.00	40.5	20.3
6	PICKETT 71	1.00	251.50	17.43	19.67	3.00	41.7	21.8
12	COBB	1.00	185.00	17.15	21.29	3.00	38.8	22.4
1	CALLAND	1.00	212.50	13.88	24.26	3.00	45.1	20.1
7	CUTLER 71	1.00	232.00	20.00	23.75	3.00	45.3	21.0
16	COLUMBUS	1.00	210.50	19.80	21.13	3.00	42.6	22.1
10	WILLIAMS	1.00	228.00	10.85	23.70	3.00	43.7	21.0
14	IMPROVED PELICAN	1.00	145.50	14.65	16.00	2.00	43.5	20.8
11	CLARK 63	1.00	250.50	16.47	21.95	3.00	45.1	21.4
8	JUPITER	1.00	106.75	10.15	20.41	2.00	43.2	21.3
4	RANSOM	1.00	246.00	19.05	19.34	3.00	39.7	23.4
2	WOODWORTH	1.00	194.75	11.43	19.13	3.00	44.6	21.5
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	222.55	17.59	21.10	2.81		
COEFFICIENT OF VARIATION		0.00%	17.46	2.68	0.69	0.00		
5% ISI VARIETY MEANS (*****=NS)		0.00	15.69%	30.45%	6.50%	0.00%		
		0.00	49.72	7.63	1.95	0.00		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.33++	0.59++	0.33++	0.14		
DAYS TO FLOWER		0.00	-0.05	0.27+	-0.24	-0.34++		
DAYS TO MATURITY		0.00	-0.33++	0.03	-0.34++	-0.44++		
NODULE NUMBER 1		0.00	0.00	0.29+	0.27+	0.21		
NODULE NUMBER 2		0.00	0.04	0.06	0.22	0.19		
NODULE WEIGHT 1		0.00	-0.23	0.26+	0.10	-0.21		
NODULE WEIGHT 2		0.00	-0.07	-0.07	0.12	-0.14		
PLANT	HEIGHT	0.00	-0.38++	0.06	-0.27+	-0.53++		
LODGING		0.00	-0.37++	-0.22	-0.29+	-0.74++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS	HARVEST	0.00	1.00	0.27+	0.13	0.28+		
PODS PER	PLANT	0.00	0.27+	1.00	0.04	0.18		
100 SEED	WEIGHT	0.00	0.13	0.04	1.00	0.46++		
QUALITY	OF SEED	0.00	0.26+	0.18	0.46++	1.00		

TABLE 182 EXPERIMENT 298 YEAR 1976

REGION - OCEANIA COUNTRY - UNITED STATES
 SITE - KAPAA, HAWAII ELEVATION - 550 M
 LATITUDE - 21 DEG. N LONGITUDE - 160 DEG. E
 COOPERATOR - TERRY T. SEKIOKA DATE HARVESTED - DECEMBER, 1976
 DATE PLANTED - SEPTEMBER-1, 1976
 SOIL TYPE - CLAY, PH 6.7
 FERTILIZER USED (KG/HA) - P 25.0, K 25.0
 AMOUNT OF MOISTURE - 403 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	IMPROVED PELICAN	1959.98	45.00	99.00	62.00	114.00	0.12	0.67	44.00	2.25
5	HILL	1665.33	48.00	89.25	102.50	111.25	0.12	0.54	28.75	2.00
8	JUPITER	1644.08	44.75	103.00	118.75	216.25	0.16	0.94	55.50	4.00
15	FORREST	1389.86	46.75	90.25	91.00	134.50	0.10	0.55	26.25	2.00
11	CLARK 63	1316.93	41.25	89.25	74.00	71.25	0.08	0.45	28.00	3.00
13	DAVIS	1308.59	48.50	92.00	73.25	120.25	0.10	0.46	25.25	1.75
1	CALLAND	1218.58	42.25	91.50	64.50	92.50	0.09	0.68	30.25	3.00
9	BOSSIER	1194.82	41.25	90.00	71.75	124.25	0.08	0.80	23.00	1.50
6	PICKETT 71	1141.48	40.75	91.50	74.25	160.00	0.09	0.82	21.75	1.50
3	BRAGG	1120.22	40.75	90.00	25.00	121.50	0.03	0.48	24.00	1.50
16	COLUMBUS	1113.14	40.50	90.50	47.75	97.50	0.05	0.44	24.50	2.75
10	WILLIAMS	1103.97	40.75	89.50	89.75	106.50	0.08	0.58	23.75	2.75
2	WOODWORTH	1086.47	41.25	86.50	48.00	47.25	0.04	0.23	25.75	3.00
7	CUTLER 71	995.20	41.00	89.50	76.25	71.25	0.05	0.21	24.75	3.25
4	RANSON	992.28	41.00	90.25	42.00	151.00	0.03	0.49	21.00	1.50
12	COBB	903.93	44.50	92.00	54.50	62.25	0.09	0.45	20.25	1.25
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% ISC VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.44++	0.49++	0.54++	0.43++	0.51++	0.42++	0.58++	0.17
DAYS TO FLOWER	0.44++	1.00	0.27+	0.27+	0.43++	0.26+	0.50++	0.23	0.29+	-0.10
DAYS TO MATURITY	0.49++	0.27+	1.00	0.29+	0.29+	0.40++	0.40++	0.28+	0.80++	0.25+
NODULE NUMBER 1	0.54++	0.43++	0.29+	0.29+	1.00	0.50++	0.78++	0.45++	0.36++	0.26+
NODULE NUMBER 2	0.43++	0.26+	0.40++	0.40++	0.50++	1.00	0.55++	0.83++	0.34++	-0.01
NODULE WEIGHT 1	0.51++	0.50++	0.40++	0.40++	0.78++	0.53++	1.00	0.63++	0.41++	0.13
NODULE WEIGHT 2	0.42++	0.23	0.23+	0.23+	0.45++	0.83++	0.63++	1.00	0.26+	-0.05
PLANT	0.58++	0.29+	0.80++	0.80++	0.36++	0.34++	0.41++	0.26+	1.00	0.46++
LODGING	0.17	-0.10	0.25+	0.25+	0.26+	-0.01	0.13	-0.05	0.46++	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	0.50++	0.24	0.03	0.03	0.37++	0.23	0.27+	0.27+	0.30+	0.25+
PLANTS PER	0.56++	0.39++	0.45++	0.45++	0.26+	0.26+	0.24	0.14	0.39++	0.06
100 SEED	-0.10	-0.35++	-0.10	-0.10	0.04	0.02	-0.05	0.11	-0.09	0.11
QUALITY OF SEED	-0.30+	-0.10	-0.29+	-0.29+	0.08	-0.01	-0.03	0.04	-0.21	0.16

TABLE 182 EXPERIMENT 298 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	IMPROVED PELICAN	1.00	231.25	13.48	15.35	2.00	45.4	19.7
5	HILL	1.00	319.00	9.02	16.80	3.00	41.7	21.6
8	JUPITER	1.00	276.00	12.28	19.61	3.00	43.3	20.8
15	FORREST	1.00	232.50	10.95	16.62	3.00	41.6	21.5
11	CLARK 63	1.00	293.75	7.82	17.91	3.00	43.2	22.2
13	DAVIS	1.00	246.75	10.85	17.81	3.00	43.9	21.4
1	CALLAND	1.00	257.25	5.12	20.86	4.00	45.3	20.2
9	BOSSIER	1.00	209.00	9.02	20.04	3.00	45.6	20.6
6	PICKETT 71	1.00	215.25	7.95	18.83	3.00	45.2	21.5
3	BRAGG	1.00	240.75	9.15	19.87	2.75	42.4	22.7
16	COLUMBUS	1.00	230.75	7.77	17.37	3.00	44.4	21.6
10	WILLIAMS	1.00	249.75	5.92	20.65	3.00	43.3	22.1
2	WOODWORTH	1.00	254.25	8.12	19.57	3.00	43.5	21.5
7	CUTLER 71	1.00	203.00	8.92	20.40	3.00	44.4	21.6
4	RANSON	1.00	232.75	7.20	17.45	3.00	41.8	22.8
12	COBB	1.00	210.75	8.97	19.43	3.00	42.4	21.6

GRAND MEAN

STANDARD ERROR OF A VARIETY MEAN

COEFFICIENT OF VARIATION

5% LSD VARIETY MEANS (*****=NS)

243.92 8.91 18.66 2.98
8.35 1.12 0.77 0.06
6.85% 25.22% 8.26% 4.19%
23.78 3.20 2.19 0.18

C O R R E L A T I O N S

(+ - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	0.00	0.50++	0.56++	-0.10	-0.30+
DAYS TO FLOWER		0.00	0.24	0.39++	-0.35++	-0.10
DAYS TO MATURITY		0.00	0.03	0.45++	-0.10	-0.29+
NODULE NUMBER 1		0.00	0.37++	0.26+	0.04	0.08
NODULE NUMBER 2		0.00	0.23	0.26+	0.02	-0.01
NODULE WEIGHT 1		0.00	0.27+	0.24	-0.05	-0.03
NODULE WEIGHT 2		0.00	0.27+	0.14	0.11	0.04
PLANT HEIGHT		0.00	0.30+	0.39++	-0.09	-0.21
LODGING		0.00	0.25+	0.06	0.11	0.16
SHATTER		1.00	0.00	0.00	0.00	0.00
HARVEST		0.00	1.00	0.08	-0.04	0.18
PODS PER PLANT		0.00	0.08	1.00	-0.15	-0.48++
100 SEED WEIGHT		0.00	-0.04	-0.15	1.00	0.41++
QUALITY OF SEED		0.00	0.18	-0.48++	0.41++	1.00

TABLE 183 EXPERIMENT 378 YEAR 1976

REGION - OCEANIA COUNTRY - UNITED STATES
 SITE - KAUAI, HAWAII ELEVATION - 550 M
 LATITUDE - 22 DEG. N LONGITUDE - 159 DEG. 30 MIN. W
 COOPERATOR - UNIVERSITY OF HAWAII, KAUAI BRANCH STATION
 DATE PLANTED - JANUARY 6, 1977 DATE HARVESTED - APRIL, 1977
 FERTILIZER USED (KG/HA) - P 25.0, K 25.0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	JUPITER	1737.43	40.00	107.00	87.75	217.25	0.35	1.00	49.00	2.50
1	CALLAND	1365.69	41.25	95.75	48.75	86.25	0.32	0.65	26.50	3.00
5	HILL	1269.84	39.00	92.50	33.75	120.00	0.18	0.59	20.75	2.50
13	DAVIS	1030.21	39.75	92.25	54.25	108.50	0.26	0.45	27.00	2.25
15	FORREST	932.27	39.00	92.50	61.75	119.00	0.29	0.54	19.25	2.25
10	WILLIAMS	895.60	40.50	92.25	52.75	140.25	0.25	0.56	20.50	2.75
11	CLARK 63	843.09	39.25	92.25	72.50	126.50	0.34	0.74	20.50	2.75
14	IMPROVED PELICAN	833.08	41.25	92.25	19.50	77.25	0.07	0.46	23.25	2.50
4	RANSOM	723.06	40.25	92.25	68.25	151.25	0.34	0.81	20.25	2.25
3	BAGG	713.06	39.50	92.25	39.00	98.50	0.15	0.61	21.50	3.00
6	PICKETT 71	700.97	40.75	92.25	43.75	118.25	0.18	0.55	16.50	2.75
2	WOODWORTH	694.72	40.75	92.25	44.00	95.00	0.23	0.40	19.50	2.50
16	COLUMBUS	681.39	41.00	92.25	51.00	111.75	0.29	0.68	21.50	2.50
7	CUTLER 71	624.29	41.25	92.50	43.00	101.50	0.16	0.46	21.50	3.00
9	BOSSIER	535.11	40.50	92.25	47.75	105.00	0.21	0.36	21.00	2.75
12	COBB	511.35	40.50	92.25	56.25	97.75	0.15	0.36	19.75	2.75
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	-0.33++	0.67++	0.47++	0.34++	0.48++	0.47++	0.51++	0.04
DAYS TO FLOWER		-0.33++	1.00	-0.14	-0.44++	0.01	-0.40++	-0.07	0.03	0.04
DAYS TO MATURITY		0.67++	-0.14	1.00	0.39++	0.51++	0.31+	0.46++	0.85++	0.00
NODULE NUMBER 1		0.47++	-0.44++	0.39++	1.00	0.19	0.74++	0.19	0.30+	-0.06
NODULE NUMBER 2		0.34++	0.01	0.51++	0.19	1.00	0.30+	0.76++	0.47++	-0.03
NODULE WEIGHT 1		0.48++	-0.40++	0.31+	0.74++	0.30+	1.00	0.46++	0.22	0.00
NODULE WEIGHT 2		0.47++	-0.07	0.46++	0.19	0.76++	0.46++	1.00	0.37++	0.12
PLANT HEIGHT		0.51++	0.03	0.85++	0.30+	0.47++	0.22	0.37++	1.00	-0.17
LODGING		0.04	0.04	0.00	-0.06	-0.03	0.00	0.12	-0.17	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.53++	-0.16	0.19	0.30+	0.12	0.30+	0.22	0.28+	-0.03
PODS PER PLANT		0.64++	-0.31+	0.31+	0.26+	0.28+	0.24	0.37++	0.23	0.03
100 SEED WEIGHT		0.24	0.14	0.12	0.21	-0.05	0.14	0.07	0.09	0.37++
QUALITY OF SEED		0.06	0.31+	0.01	-0.27+	-0.32++	-0.20	-0.09	0.05	0.21

TABLE 183 EXPERIMENT 378 YEAR 1976 (CONTINUED)

ENTRY NUMER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	JUPITER	3.00	274.75	10.05	19.10	3.00	44.9	19.4
1	CALLAND	3.00	298.00	7.55	22.21	4.00	44.4	15.5
5	HILL	3.00	276.75	10.63	17.22	3.00	41.5	17.8
13	DAVIS	3.00	272.25	9.72	16.82	3.00	45.3	16.9
15	FORREST	3.00	250.00	8.57	16.88	3.00	42.7	17.6
10	WILLIAMS	3.00	285.50	6.02	20.47	3.00	44.0	18.1
11	CLARK 63	3.00	289.00	6.70	18.06	3.00	42.6	18.0
14	IMPROVED PELICAN	3.00	231.25	8.35	17.19	4.00	45.9	16.8
4	RANSOM	3.00	239.25	7.05	17.43	3.00	40.7	22.0
3	BRAGG	3.00	249.00	6.02	21.04	3.00	42.6	18.1
6	PICKETT 71	3.00	216.75	8.45	17.60	3.00	44.1	16.8
2	WOODWORTH	3.00	248.75	6.12	17.47	3.00	42.0	17.5
16	COLUMBUS	3.00	211.75	6.97	20.10	3.00	44.4	17.5
7	CUTLER 71	3.00	211.75	5.62	21.68	4.00	44.5	16.6
9	BOSSIER	3.00	188.75	6.72	19.08	3.00	43.9	16.3
12	COBB	3.00	215.75	4.97	20.01	3.00	42.6	17.3
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 184 EXPERIMENT 147 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - ARGENTINA
 SITE - PARANA ELEVATION - 111 M
 LATITUDE - 31 DEG. 50 MIN. S LONGITUDE - 60 DEG. 31 MIN. W
 COOPERATOR - RAUL VICENTINI DATE HARVESTED - MARCH, 1977
 DATE PLANTED - NOVEMBER 12, 1976
 SOIL PH - 6.3
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 716 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	WILLIAMS	3404.85	25.00	111.25	74.75	162.75	0.05	0.23	63.75	1.00
1	CALLAND	3400.68	26.75	121.75	38.50	126.50	0.02	0.21	63.75	1.00
5	CLARK 63	3359.00	25.00	117.75	49.75	146.25	0.02	0.19	70.00	1.00
2	WOODWORTH	2967.26	25.00	109.00	41.50	117.25	0.01	0.12	57.50	1.00
3	CUTLER 71	2646.36	32.00	133.50	149.50	252.50	0.13	1.21	68.75	1.00
6	WELLS	2646.36	25.00	98.00	87.75	125.00	0.07	0.27	48.75	1.00
7	BEESON	2546.34	25.00	103.50	70.00	118.50	0.04	0.22	48.75	1.00
8	COLUMBUS	1683.67	32.00	141.00	101.75	210.00	0.08	0.47	75.00	1.00
GRAND MEAN										
2831.82										
STANDARD ERROR OF A VARIETY MEAN										
190.43										
COEFFICIENT OF VARIATION										
13.45%										
5% LSD VARIETY MEANS (*****=NS)										
560.06										
CORRELATIONS										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.46++								
DAYS TO MATURITY		1.00								
NODULE NUMBER 1		0.73++								
NODULE NUMBER 2		0.61++								
NODULE WEIGHT 1		0.57++								
NODULE WEIGHT 2		0.68++								
PLANT HEIGHT		0.43+								
LODGING		0.43+								
SHATTER		0.00								
HARVEST		0.55++								
PODS PER PLANT		-0.26								
100 SEED WEIGHT		0.13								
QUALITY OF SEED		-0.29								

TABLE 184 EXPERIMENT 147 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	WILLIAMS	1.00	193.75	36.03	18.50	3.00
1	CALLAND	1.00	212.50	39.97	19.80	3.50
5	CLARK 63	1.00	220.25	31.45	17.88	2.50
2	WOODWORTH	1.00	188.75	37.10	17.20	3.00
3	CUTLER 71	1.00	148.50	39.35	20.23	3.50
6	WELLS	1.00	203.25	26.12	17.08	2.00
7	BEESON	1.00	204.00	23.97	18.60	2.00
8	COLUMBUS	1.00	155.00	50.75	16.58	4.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.00	190.75	35.59	18.23	2.94
COEFFICIENT OF VARIATION		0.00	9.41	3.57	1.17	0.30
5% ISL VARIETY MEANS (*****=NS)		0.00%	9.86%	20.07%	12.83%	20.51%
		0.00	27.66	10.51	*****	0.89
C O R R E L A T I O N S						
		(+ - PROB=.05		+ - PROB=.01)		
YIELD KG/HA		0.00	0.55++	-0.26	0.13	-0.29
DAYS TO FLOWER		0.00	-0.68++	0.54++	0.13	0.49++
DAYS TO MATURITY		0.00	-0.50++	0.71++	0.13	0.60++
NODULE NUMBER 1		0.00	-0.59++	0.11	0.11	0.07
NODULE NUMBER 2		0.00	-0.32	0.36+	0.05	0.16
NODULE HEIGHT 1		0.00	-0.57++	0.16	0.13	0.13
NODULE HEIGHT 2		0.00	-0.21	0.19	0.10	0.07
PLANT HEIGHT		0.00	-0.19	0.56++	-0.10	0.57++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.44+	-0.22	-0.41+
PODS PER PLANT		0.00	-0.44+	1.00	0.02	0.55++
100 SEED WEIGHT		0.00	-0.22	0.02	1.00	-0.16
QUALITY OF SEED		0.00	-0.41+	0.55++	-0.16	1.00

TABLE 185 EXPERIMENT 26 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - BOLIVIA
 SITE - SANTA CRUZ ELEVATION - 389 M
 LATITUDE - 18 DEG. 39 MIN. S LONGITUDE - 63 DEG. 1 MIN. W
 COOPERATOR - ALBERTO CASTILLO DATE HARVESTED - MARCH, 1977
 DATE PLANTED - NOVEMBER 11, 1976
 SOIL TYPE - SAND 23%, SILT 54%, CLAY 23%, PH 7.0
 AMOUNT OF MOISTURE - 531 MM
 NUMBER OF IRRIGATIONS - 2
 LOCAL VARIETY - PELICANO

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
3	BRAGG	5152.70	37.75	103.25	0.00	0.00	0.00	0.00	53.00	1.00
12	COBB	4983.08	40.00	107.75	0.00	0.00	0.00	0.00	70.00	1.25
7	PELICANO	4157.91	60.75	140.25	0.00	0.00	0.00	0.00	89.50	1.75
15	FORREST	3995.38	35.50	99.25	0.00	0.00	0.00	0.00	62.00	1.25
14	IMPROVED PELICAN	3951.21	36.00	105.25	0.00	0.00	0.00	0.00	60.25	1.00
1	CALLAND	3694.07	35.50	105.00	0.00	0.00	0.00	0.00	59.25	1.50
11	CLARK 63	3681.99	35.50	105.00	0.00	0.00	0.00	0.00	57.00	1.00
4	RANSOM	3627.39	38.75	106.25	0.00	0.00	0.00	0.00	56.00	1.50
13	DAVIS	3367.34	59.00	123.75	0.00	0.00	0.00	0.00	130.50	2.50
5	HILL	3302.33	36.00	98.00	0.00	0.00	0.00	0.00	54.25	1.50
16	COLUMBUS	3131.04	63.25	134.25	0.00	0.00	0.00	0.00	117.50	3.00
8	JUPITER	3075.61	34.75	105.00	0.00	0.00	0.00	0.00	55.75	1.00
10	WILLIAMS	2808.06	34.25	98.75	0.00	0.00	0.00	0.00	59.50	1.00
9	BOSSIER	2625.94	34.50	98.00	0.00	0.00	0.00	0.00	54.00	1.25
6	PICKETT 71	2515.92	35.00	97.50	0.00	0.00	0.00	0.00	35.50	1.00
2	WOODWORTH	1754.10	34.00	93.50	0.00	0.00	0.00	0.00	44.25	1.50
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****NS)										
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)										
YIELD KG/HA										
DAYS TO FLOWER										
DAYS TO MATURITY										
NODULE NUMBER 1										
NODULE NUMBER 2										
NODULE WEIGHT 1										
NODULE WEIGHT 2										
PLANT HEIGHT										
LODGING										
SHATTER										
PLANTS HARVEST										
PODS PER PLANT										
100 SEED WEIGHT										
QUALITY OF SEED										

TABLE 185 EXPERIMENT 26 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
3	BRAGG	1.00	91.50	57.00	21.25	0.00	40.9	22.6
12	COBB	1.25	113.25	55.25	20.25	0.00	36.1	24.2
7	PELICANO	2.00	75.50	86.75	22.85	0.00	--	--
15	FORREST	1.00	128.25	48.50	22.23	0.00	38.5	22.8
14	IMPROVED PELICAN	1.00	94.25	63.50	18.18	0.00	39.8	24.4
1	CALLAND	1.00	97.00	36.50	24.95	0.00	41.4	21.5
11	CLARK 63	1.00	98.00	63.50	19.88	0.00	42.3	22.6
4	RANSOM	1.00	99.00	38.50	22.45	0.00	35.8	23.4
13	DAVIS	2.00	96.00	114.25	19.10	0.00	40.3	21.8
5	HILL	1.25	97.50	49.75	19.45	0.00	38.2	21.4
16	COLUMBUS	3.00	90.50	73.00	22.88	0.00	38.5	23.5
8	JUPITER	1.00	92.25	51.25	22.48	0.00	--	--
10	WILLIAMS	1.00	86.50	37.00	21.63	0.00	42.6	22.0
9	BOSSIER	1.25	78.75	32.50	25.60	0.00	43.8	21.2
6	PICKETT 71	1.00	88.75	36.50	22.83	0.00	41.0	22.5
2	WOODWORTH	1.00	83.75	37.75	21.75	0.00	41.6	22.3
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.30	94.42	55.09	21.73	0.00		
COEFFICIENT OF VARIATION		0.11	13.51	7.33	0.65	0.00		
5% LSC VARIETY MEANS (*****=NS)		16.57%	28.62%	26.59%	6.00%	0.00%		
		0.31	*****	20.87	1.86	0.00		
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)								
YIELD	KG/HA	-0.02	0.23	0.29+	-0.22	0.00		
DAYS TO FLOWER		0.87++	-0.11	0.66++	-0.05	0.00		
DAYS TO MATURITY		0.78++	-0.11	0.61++	0.00	0.00		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT		0.00	0.00	0.00	0.00	0.00		
LODGING		0.78++	-0.04	0.72++	-0.12	0.00		
SHATTER		0.77++	-0.09	0.44++	-0.03	0.00		
PLANTS		1.00	-0.14	0.52++	0.03	0.00		
PODS PER		-0.14	1.00	-0.06	-0.10	0.00		
HARVEST		-0.06	-0.06	1.00	-0.35++	0.00		
PLANT		0.52++	-0.10	-0.35++	1.00	0.00		
100 SEED		0.03	0.00	0.00	0.00	0.00		
WEIGHT		0.00	0.00	0.00	0.00	1.00		
QUALITY		0.00	0.00	0.00	0.00	1.00		
OF SEED								

TABLE 186 EXPERIMENT 375 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	DAVIS	1.00	189.25	37.23	16.00	2.00
9	BOSSIER	1.00	151.00	38.78	16.75	1.00
8	JUPITER	1.00	158.50	38.10	17.75	2.00
4	RANSOM	1.00	181.75	32.38	17.50	2.00
12	COBB	1.00	149.00	46.10	14.75	2.00
15	FORREST	1.00	162.50	40.93	15.00	1.25
6	PICKETT 71	1.00	176.25	32.85	15.75	2.00
1	CALLAND	1.00	169.75	28.63	17.00	2.00
5	HILL	1.00	177.75	33.68	14.50	1.75
14	IMPROVED PELICAN	1.00	160.50	39.30	13.75	1.50
11	CLARK 63	1.00	179.25	26.33	15.75	1.75
16	ACADIAN	1.00	166.75	38.08	14.75	1.25
3	BRAGG	1.00	183.00	29.40	16.75	1.25
10	WILLIAMS	1.00	173.25	27.25	16.75	1.00
2	WOODWORTH	1.00	183.25	26.83	16.75	2.00
7	PELICANO	1.00	192.50	47.15	13.75	1.25
GRAND MEAN						
1.00 172.14 35.19 15.83 1.63						
STANDARD ERROR OF A VARIETY MEAN						
0.00 10.15 2.74 0.52 0.15						
COEFFICIENT OF VARIATION						
0.00% 11.79% 15.58% 6.57% 18.91%						
5% LSC VARIETY MEANS (*****=NS)						
0.00 ***** 7.81 1.48 0.44						
C O R R E L A T I O N S						
(+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.00	-0.21	0.32+	0.40++	0.19
DAYS TO FLOWER		0.00	-0.27+	0.38++	-0.24	-0.16
DAYS TO MATURITY		0.00	-0.26+	0.59++	-0.16	-0.13
NODULE NUMBER 1		0.00	-0.02	-0.04	0.11	0.07
NODULE NUMBER 2		0.00	-0.17	0.10	0.10	0.07
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT		0.00	-0.01	0.40++	-0.28+	-0.14
LODGING		0.00	0.04	0.47++	-0.22	-0.05
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS		0.00	1.00	-0.33++	-0.07	0.05
HARVEST		0.00	-0.38++	1.00	-0.32++	-0.06
PODS PER		0.00	-0.07	-0.32++	1.00	0.08
100 SEED		0.00	0.05	-0.06	0.08	1.00
QUALITY	OF SEED	0.00				

TABLE 187

EXPERIMENT 363

YEAR 1976

REGION - SOUTH AMERICA
 SITE - JANAUBA
 LATITUDE - 15 DEG. S
 COOPERATOR - BENCHMARK SOILS PROJECT
 DATE PLANTED - NOVEMBER 25, 1976
 SOIL TYPE - SAND 20%, SILT 17%, CLAY 63%, PH 5.8
 FERTILIZER USED (KG/HA) - N 25.0, P 130.0, K 50.0
 AMOUNT OF MOISTURE - 717 MM
 NUMBER OF IRRIGATIONS - 11 (331 MM)

COUNTRY - BRAZIL
 ELEVATION - 510 M
 LONGITUDE - 44 DEG. W

DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	DAVIS	4473.39	30.75	105.50	0.00	0.00	0.00	0.00	64.25	1.00
3	BRAGG	4002.88	26.25	99.25	0.00	0.00	0.00	0.00	49.75	1.00
4	RANSOM	3814.93	24.25	100.50	0.00	0.00	0.00	0.00	37.75	1.00
9	BOSSIER	3512.79	25.50	100.75	0.00	0.00	0.00	0.00	31.50	1.00
15	FORREST	3476.11	29.00	99.25	0.00	0.00	0.00	0.00	54.25	1.00
16	COLUMBUS	3397.35	24.75	85.00	0.00	0.00	0.00	0.00	56.25	1.00
11	CLARK 63	3261.90	24.25	84.00	0.00	0.00	0.00	0.00	57.75	1.50
12	COBB	2941.00	28.75	122.50	0.00	0.00	0.00	0.00	54.50	1.00
7	CUTLER 71	2879.33	26.50	82.00	0.00	0.00	0.00	0.00	59.75	1.00
1	CALLAND	2766.39	24.50	84.00	0.00	0.00	0.00	0.00	52.75	1.00
6	PICKETT 71	2698.04	27.25	98.00	0.00	0.00	0.00	0.00	28.25	1.00
2	WOODWORTH	2654.70	25.00	82.00	0.00	0.00	0.00	0.00	48.75	1.00
5	HILL	2640.94	30.75	90.25	0.00	0.00	0.00	0.00	48.25	1.00
10	WILLIAMS	2597.60	26.00	82.50	0.00	0.00	0.00	0.00	51.50	1.00
14	IMPROVED PELICAN	1178.15	40.75	144.25	0.00	0.00	0.00	0.00	120.75	2.50
8	JUPITER	153.36	47.75	157.00	0.00	0.00	0.00	0.00	101.50	4.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LST VARIETY MEANS (*****=NS)										
CORRELATIONS										
(* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.67++								
DAYS TO MATURITY		1.00								
NODULE NUMBER 1		-0.58++								
NODULE NUMBER 2		0.00								
NODULE WEIGHT 1		0.00								
NODULE WEIGHT 2		0.00								
PLANT		0.00								
HEIGHT		-0.55++								
LODGING		-0.67++								
SHATTER		-0.30+								
HARVEST		0.36++								
PLANTS		-0.51++								
PODS PER PLANT		0.82++								
100 SEED WEIGHT		-0.84++								
QUALITY OF SEED		-0.39++								
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.67++								
DAYS TO MATURITY		1.00								
NODULE NUMBER 1		-0.58++								
NODULE NUMBER 2		0.00								
NODULE WEIGHT 1		0.00								
NODULE WEIGHT 2		0.00								
PLANT		0.00								
HEIGHT		-0.55++								
LODGING		-0.67++								
SHATTER		-0.30+								
HARVEST		0.36++								
PLANTS		-0.51++								
PODS PER PLANT		0.82++								
100 SEED WEIGHT		-0.84++								
QUALITY OF SEED		-0.39++								

TABLE 187 EXPERIMENT 363 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
13	DAVIS	1.75	305.50	20.08	19.70	3.25	39.6	23.4
3	BRAGG	1.00	280.50	21.83	19.43	2.50	40.1	23.3
4	RANSOM	1.00	258.50	15.38	19.70	2.75	37.9	25.6
9	BOSSIER	1.00	157.25	27.25	18.50	3.50	42.6	22.1
15	FORREST	1.00	233.25	32.00	14.33	3.50	39.3	22.8
16	COLUMBUS	1.00	202.25	25.30	17.78	2.25	42.0	23.1
11	CLARK 63	1.00	273.75	17.12	16.85	2.25	39.9	23.3
12	COBB	2.25	198.75	26.65	16.15	4.50	38.7	24.9
7	CUTLER 71	1.00	177.25	25.40	17.83	2.25	39.6	23.2
1	CALLAND	1.50	246.25	16.75	18.98	3.00	41.0	22.3
6	PICKETT 71	1.25	164.25	25.30	17.63	1.50	39.8	24.3
2	WOODWORTH	1.25	234.75	19.72	15.75	1.50	37.4	24.3
5	HILL	1.50	228.50	26.45	15.25	2.50	39.0	22.3
10	WILLIAMS	1.00	252.75	17.53	19.55	1.25	42.0	22.8
14	IMPROVED PELICAN	2.25	190.50	38.12	8.00	4.25	42.2	18.8
8	JUPITER	1.25	234.00	38.05	4.00	5.00	43.9	12.6
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.31	227.38	24.56	16.21	2.86		
COEFFICIENT OF VARIATION		0.28	14.95	3.24	0.66	0.35		
5% 1st VARIETY MEANS (*****=NS)		41.92%	13.15%	26.35%	8.20%	24.22%		
		0.78	42.57	9.22	1.89	0.99		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.30+	0.36++	-0.51++	0.82++	-0.39++		
DAYS TO FLOWER		0.31+	-0.06	0.63++	-0.84++	0.58++		
DAYS TO MATURITY		0.34++	-0.12	0.61++	-0.78++	0.75++		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT	HEIGHT	0.27+	0.08	0.49++	-0.76++	0.46++		
LODGING		0.16	-0.04	0.45++	-0.78++	0.46++		
SHATTER		1.00	-0.21	0.23	-0.21	0.44++		
HARVEST		-0.21	1.00	-0.43++	0.18	-0.18		
PODS PER PLANT		0.23	-0.43++	1.00	-0.65++	0.52++		
100 SEED WEIGHT		-0.21	0.18	-0.65++	1.00	-0.56++		
QUALITY OF SEED		0.44++	-0.18	0.52++	-0.56++	1.00		

TABLE 188 EXPERIMENT 646 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
2	HANPTON 266A	0.00	107.75	16.65	16.70	2.50
14	CALLAND	0.00	132.00	12.35	20.25	2.00
6	BOSSIER	0.00	112.00	15.58	15.75	1.75
13	WILLIAMS	0.00	93.50	17.03	18.83	1.25
7	DAVIS	0.00	144.25	13.90	15.13	1.50
9	FORREST	0.00	141.25	12.30	15.25	2.75
10	COLUMBUS	0.00	129.50	13.20	16.88	2.00
12	WOODWORTH	0.00	42.50	23.00	15.83	1.75
15	SENNES	0.00	132.25	12.63	15.75	1.50
8	TRACY	0.00	141.75	10.55	15.63	2.50
1	JUPIER	0.00	117.00	19.70	13.13	2.00
3	HARDEE	0.00	98.00	24.25	13.63	1.00
11	CLARK 63	0.00	23.50	27.88	16.63	2.00
5	COBB	0.00	27.50	24.45	16.25	1.50
4	IMPROVED PELICAN	0.00	137.75	9.77	14.90	1.75
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	105.37	16.88	16.03	1.85
COEFFICIENT OF VARIATION		0.00	14.09	2.62	0.62	0.30
5% LSC VARIETY MEANS (*****=NS)		0.00	26.74%	31.05%	7.80%	32.70%
C O R R E L A T I O N S						
		(+ - PROB=-.05		++ - PROB=-.01)		
YIELD	KG/HA	0.00	0.25	-0.05	0.23	-0.09
DAYS TO FLOWER		0.00	0.04	0.12	-0.48++	-0.22
DAYS TO MATURITY		0.00	-0.22	0.21	-0.07	-0.26+
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.15	0.33++	-0.13	0.05
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.65++	-0.07	0.28+
PODS PER PLANT		0.00	-0.65++	1.00	-0.13	-0.26+
100 SEED WEIGHT		0.00	-0.07	-0.13	1.00	-0.00
QUALITY OF SEED		0.00	0.28+	-0.26+	-0.00	1.00

TABLE 189 EXPERIMENT 1 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - BRAZIL
 SITE - MANAUS ELEVATION - 30 M
 LATITUDE - 3 DEG. 8 MIN. S LONGITUDE - 60 DEG. 2 MIN. W
 COOPERATOR - FAZAL RAHMAN
 DATE PLANTED - NOVEMBER 23, 1976 DATE HARVESTED - FEBRUARY, 1977
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 LOCAL VARIETY - MANAUS-1

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	MANAUS-1	2217.11	50.00	119.00	69.00	106.00	0.77	1.18	95.12	3.25
7	JUPITER	1373.19	38.00	110.50	79.25	52.50	0.55	0.70	66.45	3.00
5	HILL	1264.88	26.75	74.50	37.25	36.25	0.63	0.67	36.18	1.00
14	FORREST	1100.72	26.00	87.00	39.75	66.00	0.60	1.10	38.80	1.00
9	WILLIAMS	936.65	25.25	85.25	77.50	44.00	1.08	0.88	73.27	1.50
4	RANSON	816.54	26.75	90.50	57.25	39.75	0.65	0.67	35.25	1.00
2	WOODWORTH	776.20	23.00	75.00	41.75	34.75	0.78	0.63	65.37	1.00
3	BAGG	745.27	26.00	89.50	62.50	66.50	0.80	0.80	36.78	1.00
12	DAVIS	728.27	26.00	88.75	40.75	46.25	0.90	1.05	34.70	1.00
6	PICKETT 71	641.09	26.00	87.75	31.75	46.25	0.50	0.83	28.30	1.00
8	BOSSIER	559.32	25.25	90.75	45.25	45.25	0.70	0.55	33.08	1.00
16	ESSEX	530.90	23.75	87.00	81.75	42.50	0.82	0.80	29.65	1.00
10	CLARK 63	476.60	23.75	86.00	72.25	33.50	0.95	0.60	71.98	1.50
13	IMPROVED PELICAN	320.73	33.00	84.25	34.25	54.50	0.65	0.90	90.42	2.00
1	CALLAND	271.76	23.75	84.50	56.50	42.00	0.93	0.83	73.98	1.50
11	COBB	230.50	27.75	93.75	32.50	53.00	0.55	0.60	39.75	1.00
GRAND MEAN		811.86	28.19	90.50	53.70	50.56	0.74	0.80	53.07	1.42
STANDARD ERROR OF A VARIETY MEAN		251.41	0.58	1.48	13.68	13.67	0.15	0.15	2.61	0.13
COEFFICIENT OF VARIATION		61.93%	4.08%	3.27%	50.96%	54.07%	39.22%	37.86%	9.84%	18.02%
5% LSD VARIETY MEANS (*****=NS)		716.12	1.64	4.22	*****	*****	*****	*****	7.44	0.36
CORRELATIONS (+ - PROB=.05 +- - PROB=.01)										
YIELD KG/HA		1.00	0.53++	0.36++	0.08	0.23	-0.04	0.15	0.18	0.44++
DAYS TO FLOWER		0.53++	1.00	0.86++	0.14	0.44++	-0.11	0.24	0.54++	0.84++
DAYS TO MATURITY		0.36++	0.86++	1.00	0.21	0.47++	-0.13	0.19	0.44++	0.79++
NODULE NUMBER 1		0.08	0.14	0.21	1.00	-0.02	0.49++	-0.09	0.17	0.26+
NODULE NUMBER 2		0.23	0.44++	0.47++	-0.02	1.00	0.05	0.57++	0.19	0.38++
NODULE WEIGHT 1		-0.04	-0.11	-0.13	0.19	0.05	1.00	0.07	0.15	-0.07
NODULE WEIGHT 2		0.15	0.24	0.19	-0.09	0.57++	0.07	1.00	0.16	0.26+
PLANT HEIGHT		0.18	0.54++	0.44++	0.17	0.19	0.15	0.16	1.00	0.71++
LODGING		0.44++	0.84++	0.79++	0.26+	0.38++	-0.07	0.26+	0.71++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		-0.05	-0.37++	-0.42++	-0.10	0.00	0.00	0.00	-0.29+	-0.44++
PODS PER PLANT		0.51++	0.85++	0.70++	0.13	0.46++	-0.02	0.23	0.57++	0.71++
100 SEED WEIGHT		-0.32+	-0.35++	-0.05	0.22	-0.01	0.10	-0.04	-0.33++	-0.19
QUALITY OF SEED		-0.20	-0.04	0.18	0.09	0.12	0.14	-0.01	-0.23	-0.14

TABLE 189 EXPERIMENT 1 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	MANAUS-1	1.00	133.50	119.38	14.53	3.00
7	JUPITER	1.00	104.25	51.43	21.25	2.75
5	HILL	1.00	140.75	36.45	16.00	1.75
14	FORREST	1.00	142.25	48.03	17.05	3.00
9	WILLIAMS	1.00	139.75	39.50	20.13	2.25
4	RANSOM	1.00	143.75	36.25	22.00	3.75
2	WOODWORTH	1.00	138.75	43.63	16.63	2.50
3	BAGG	1.00	136.50	35.03	21.13	3.25
12	DAVIS	1.00	147.25	40.65	19.88	3.25
6	PICKETT 71	1.00	135.25	33.05	19.75	2.50
8	BOSSIER	1.00	140.75	40.33	20.68	3.75
16	ESSEX	1.00	136.25	33.35	19.60	3.25
10	CLARK 63	1.00	144.25	37.93	19.38	2.75
13	IMPROVED PELICAN	1.00	115.00	52.73	16.45	2.25
1	CALLAND	1.00	146.25	39.20	20.00	3.00
11	COBB	1.00	135.75	43.43	18.75	3.25
	GRAND MEAN	1.00	136.27	45.65	18.95	2.89
	STANDARD ERROR OF A VARIETY MEAN	0.00	6.03	3.86	0.78	0.33
	COEFFICIENT OF VARIATION	0.00%	8.86%	16.93%	8.21%	22.75%
	5% LSD VARIETY MEANS (*****NS)	0.00	17.19	11.01	2.21	0.94
C O R R E L A T I O N S						
	YIELD KG/HA	0.00	-0.05	0.51++	-0.32+	-0.20
	DAYS TO FLOWER	0.00	-0.37++	0.85++	-0.35++	-0.04
	DAYS TO MATURITY	0.00	-0.42++	0.70++	-0.05	0.18
	NODULE NUMBER 1	0.00	-0.10	0.13	0.22	0.09
	NODULE NUMBER 2	0.00	-0.10	0.46++	-0.01	0.12
	NODULE WEIGHT 1	0.00	0.23	-0.02	0.10	0.14
	NODULE WEIGHT 2	0.00	0.05	0.23	-0.04	-0.01
	PLANT HEIGHT	0.00	-0.29+	0.57++	-0.33++	-0.23
	LODGING	0.00	-0.44++	0.71++	-0.19	-0.14
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	-0.15	-0.03	0.16
	PODS PER PLANT	0.00	-0.15	1.00	-0.53++	0.03
	100 SEED WEIGHT	0.00	-0.03	-0.53++	1.00	0.32++
	QUALITY OF SEED	0.00	0.16	0.03	0.32++	1.00

(+ - PROB=.05) ++ - PROB=.01)

TABLE 190 EXPERIMENT 995 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	TGH 256-1-B	1.00	136.50	51.18	11.00	3.00
5	TGH 294-4-2371	1.00	157.25	42.00	16.38	2.50
1	TGH 220-1-2205	1.00	134.75	87.70	15.13	2.50
3	TGH 255-2-4341	1.00	136.50	95.55	13.38	3.25
4	TGH 249-4-B	1.00	136.00	78.18	17.25	3.25
6	TGX 66-5100	1.00	144.00	76.25	14.25	2.75
2	TGH 210-1-2363	1.00	140.75	50.83	16.88	3.50
7	TGX 13-3-2644	1.00	131.00	48.35	19.13	3.25
GRAND MEAN						
		1.00	139.59	66.25	15.42	3.03
STANDARD ERROR OF A VARIETY MEAN						
		0.00	4.77	5.64	0.66	0.47
COEFFICIENT OF VARIATION						
		0.00%	6.83%	17.02%	8.52%	30.89%
5% LSD VARIETY MEANS (*****=NS)						
		0.00	14.03	16.58	1.93	*****
C O R R E L A T I O N S						
			(+ - PROB=.05		+ - PROB=.01)	
YIELD	KG/HA	0.00	0.12	-0.08	-0.40+	-0.32
DAYS TO	FLOWER	0.00	0.34	-0.20	-0.29	-0.32
DAYS TO	MATURITY	0.00	-0.41+	0.22	0.42+	0.18
NODULE	NUMBER 1	0.00	0.03	-0.29	-0.00	-0.30
NODULE	NUMBER 2	0.00	-0.17	-0.11	0.12	-0.36+
NODULE	WEIGHT 1	0.00	0.12	-0.05	-0.22	-0.31
NODULE	WEIGHT 2	0.00	-0.30	-0.02	0.13	-0.20
PLANT	HEIGHT	0.00	-0.14	0.15	0.19	0.24
LODGING		0.00	-0.06	0.46++	-0.24	-0.20
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.12	0.06	0.15
PODS PER	PLANT	0.00	-0.12	1.00	-0.19	0.08
100 SEED	WEIGHT	0.00	0.06	-0.19	1.00	0.18
QUALITY	OF SEED	0.00	0.15	0.08	0.18	1.00

TABLE 191 EXPERIMENT 303 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - CHILE
 SITE - LA PLATINA ELEVATION - 625 M
 LATITUDE - 33 DEG. 27 MIN. S LONGITUDE - 70 DEG. 41 MIN. W
 COOPERATOR - H. GELDRES DATE HARVESTED - JANUARY, 1977
 DATE PLANTED - OCTOBER 14, 1976
 SOIL TYPE - CLAY LOAM, PH 8.1
 FERTILIZER USED (KG/HA) - P 75.2
 AMOUNT OF MOISTURE - 44 MM
 NUMBER OF IRRIGATIONS - 8

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	WELLS	4717.19	0.00	134.00	113.00	209.50	1.53	3.26	101.25	0.00
2	WOODWORTH	4517.15	0.00	136.50	60.25	118.75	0.43	1.40	102.50	0.00
7	BEESON	4399.63	0.00	134.00	52.00	94.50	0.76	1.67	96.25	0.00
10	ANSOY 71	4164.58	0.00	134.00	75.75	145.25	0.79	1.74	110.00	0.00
13	STEELE	3883.69	0.00	128.00	86.75	118.50	1.37	1.56	86.25	0.00
9	CORSOY	3864.94	0.00	131.00	180.00	219.00	2.02	2.80	100.00	0.00
1	CALLAND	3819.10	0.00	142.25	67.50	112.50	1.24	1.95	112.50	0.00
4	WILLIAMS	3678.24	0.00	139.50	74.25	99.50	0.77	1.05	110.00	0.00
11	HODGSON	3329.00	0.00	130.75	91.00	113.75	0.92	1.18	75.00	0.00
12	HARK	3171.05	0.00	130.75	111.50	173.50	1.08	1.92	103.75	0.00
5	CLARK 63	2971.01	0.00	142.25	80.00	117.00	0.67	1.39	120.00	0.00
3	CUTLER 71	2743.05	0.00	142.25	128.25	158.25	1.22	1.73	108.75	0.00
8	COLUMBUS	1748.27	0.00	157.00	107.00	134.25	1.09	1.60	110.00	0.00
GRAND MEAN		3615.92	0.00	137.10	94.40	139.56	1.07	1.79	102.79	0.00
STANDARD ERROR OF A VARIETY MEAN		236.18	0.00	2.79	16.12	26.63	0.22	0.35	2.97	0.00
COEFFICIENT OF VARIATION		13.06%	0.00%	4.08%	34.15%	38.16%	40.77%	39.19%	5.79%	0.00%
5% LSD VARIETY MEANS (*****=NS)		677.40	0.00	8.01	46.23	76.37	0.62	1.00	8.53	0.00
C O R R E L A T I O N S (+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		0.00								
DAYS TO MATURITY		-0.46++								
NODULE NUMBER 1		0.00								
NODULE NUMBER 2		-0.17								
NODULE WEIGHT 1		0.17								
NODULE WEIGHT 2		-0.02								
PLANT		0.29+								
LODGING		-0.13								
SHATTER		0.00								
HARVEST		0.00								
PLANTS PER 100 SEED		0.49++								
WEIGHT		0.11								
QUALITY OF SEED		0.62++								
		-0.43++								

TABLE 191

EXPERIMENT 303

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
6	WELLS	0.00	205.50	34.50	16.75	1.50	40.7	21.2
2	WOODWORTH	0.00	202.75	33.23	16.98	2.00	38.8	21.0
7	BEESON	0.00	209.75	31.65	18.75	1.50	41.8	18.9
10	AMSOY 71	0.00	192.25	31.80	18.35	2.25	38.3	20.6
13	STEELE	0.00	193.00	36.62	18.28	1.25	41.7	19.9
9	CORSOY	0.00	186.50	41.92	17.08	1.25	41.8	18.9
1	CALLAND	0.00	204.25	28.58	18.95	2.25	41.2	20.3
4	WILLIAMS	0.00	204.25	28.08	17.98	1.75	41.0	20.8
11	HODGSON	0.00	180.00	36.55	20.00	1.00	40.5	20.9
12	HARK	0.00	180.75	30.75	17.80	2.50	41.1	19.5
5	CLARK 63	0.00	189.00	28.42	15.23	2.25	41.8	20.3
3	CUTLER 71	0.00	161.25	28.10	16.35	2.50	39.9	21.0
8	COLUMBUS	0.00	184.25	32.07	10.83	3.75	43.4	17.5
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		0.00	191.81	32.48	17.18	1.98		
COEFFICIENT OF VARIATION		0.00%	9.56	3.02	0.46	0.34		
5% ISD VARIETY MEANS (*****=NS)		0.00	*****	18.60%	5.30%	34.73%		
C O R R E L A T I O N S								
			(+ - PROB=.05	++ - PROB=.01)				
YIELD KG/HA		0.00	0.49++	0.11	0.62++	-0.43++		
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00		
DAYS TO MATURITY		0.00	-0.09	-0.39++	-0.59++	0.51++		
NODULE NUMBER 1		0.00	-0.28+	0.23	-0.23	0.11		
NODULE NUMBER 2		0.00	-0.06	-0.01	-0.11	0.17		
NODULE WEIGHT 1		0.00	-0.28+	0.41++	-0.06	0.01		
NODULE WEIGHT 2		0.00	0.06	0.18	-0.07	0.04		
PLANT HEIGHT		0.00	-0.01	-0.31+	-0.43++	0.48++		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
HARVEST		0.00	1.00	-0.12	0.21	-0.13		
PLANTS PER PLANT		0.00	-0.12	1.00	0.03	-0.14		
PODS PER PLANT		0.00	0.21	0.03	1.00	-0.55++		
100 SEED WEIGHT		0.00	-0.13	-0.14	-0.55++	1.00		
QUALITY OF SEED		0.00						

TABLE 192 EXPERIMENT 165 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - COLOMBIA
 SITE - PALMIRA ELEVATION - 1008 M
 LATITUDE - 3 DEG. 32 MIN. N LONGITUDE - 76 DEG. 17 MIN. W
 COOPERATOR - PROGRAMA LEGUMINOSAS DE GRANO Y OLEAGINOSAS ANUALES
 DATE PLANTED - OCTOBER 19, 1976 DATE HARVESTED - FEBRUARY, 1977
 SOIL TYPE - CLAY, PH 6.8
 AMOUNT OF MOISTURE - 234 MM
 NUMBER OF IRRIGATIONS - 3 (35 MM)
 LOCAL VARIETIES - ICA LILY, ICA TUNIA

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	FORREST	2400.48	26.00	79.00	0.00	0.00	0.00	0.00	42.25	1.00
12	DAVIS	2383.81	26.00	81.00	0.00	0.00	0.00	0.00	38.00	1.00
16	ICA TUNIA	2150.43	26.00	84.00	0.00	0.00	0.00	0.00	51.00	1.00
11	COBB	1987.90	25.00	79.00	0.00	0.00	0.00	0.00	33.00	1.00
13	IMPROVED PELICAN	1967.06	30.00	80.00	0.00	0.00	0.00	0.00	58.00	1.50
5	HILL	1950.39	29.00	79.00	0.00	0.00	0.00	0.00	42.25	2.50
3	BRAGG	1892.04	26.00	79.00	0.00	0.00	0.00	0.00	34.50	1.00
6	PICKETT 71	1842.03	24.00	80.00	0.00	0.00	0.00	0.00	30.50	1.00
1	CALLAND	1821.20	23.00	78.00	0.00	0.00	0.00	0.00	42.50	1.00
15	ICA LILY	1796.19	29.00	81.00	0.00	0.00	0.00	0.00	51.75	3.00
8	BOSSIER	1629.49	23.00	79.00	0.00	0.00	0.00	0.00	28.25	1.00
10	CLARK 63	1579.48	23.00	76.00	0.00	0.00	0.00	0.00	39.75	1.25
4	RANSOM	1504.47	24.00	81.00	0.00	0.00	0.00	0.00	32.00	1.00
9	WILLIAMS	1487.80	24.00	76.00	0.00	0.00	0.00	0.00	36.50	1.25
7	JUPITER	1325.26	30.00	84.00	0.00	0.00	0.00	0.00	74.00	3.00
2	WOODWORTH	1108.55	24.00	72.00	0.00	0.00	0.00	0.00	37.25	1.25
	GRAND MEAN	1801.66	25.75	79.25	0.00	0.00	0.00	0.00	41.97	1.42
	STANDARD ERROR OF A VARIETY MEAN	150.85	0.00	0.00	0.00	0.00	0.00	0.00	2.35	0.16
	COEFFICIENT OF VARIATION	16.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.20%	22.74%
	5% LSD VARIETY MEANS (*****=NS)	429.68	0.00	0.00	0.00	0.00	0.00	0.00	6.70	0.46

(+ - PROB=-.05 ++ - PROB=-.01)

C O R R E L A T I O N S

YIELD	1.00	0.15	0.32++	0.00	0.00	0.00	0.00	0.00	0.00	-0.12
DAYS TO FLOWER	0.15	1.00	0.52++	0.00	0.00	0.00	0.00	0.00	0.73++	0.69++
DAYS TO MATURITY	0.32++	0.52++	1.00	0.00	0.00	0.00	0.00	0.00	0.46++	0.27+
NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
HEIGHT	-0.02	0.73++	0.46++	0.00	0.00	0.00	0.00	0.00	1.00	0.59++
LODGING	-0.12	0.63++	0.27+	0.00	0.00	0.00	0.00	0.00	0.59++	1.00
SHATTER	-0.29+	0.00	-0.10	0.00	0.00	0.00	0.00	0.00	-0.01	-0.08
HARVEST	0.07	0.29+	0.04	0.00	0.00	0.00	0.00	0.00	0.16	0.27+
PLANT	0.25+	0.20	0.21	0.00	0.00	0.00	0.00	0.00	0.15	0.05
PODS PER 100 SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	0.23	-0.11	0.01	0.00	0.00	0.00	0.00	0.00	-0.43++	-0.20

TABLE 192 EXPERIMENT 165 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	FORREST	1.25	254.00	24.50	0.00	3.00
12	DAVIS	1.25	296.75	24.75	0.00	4.00
16	ICA TUNIA	1.25	262.25	19.50	0.00	3.00
11	COBB	1.50	261.75	23.00	0.00	3.00
13	IMPROVED PELICAN	2.00	245.00	30.00	0.00	3.00
5	HILL	1.00	306.25	16.00	0.00	4.00
3	BRAGG	1.50	283.50	18.75	0.00	3.00
6	PICKETT 71	2.25	227.50	25.00	0.00	3.00
1	CALLAND	1.50	270.75	16.00	0.00	4.00
15	ICA LILY	1.75	281.25	21.50	0.00	3.00
8	BOSSIER	1.00	221.75	24.50	0.00	3.00
10	CLARK 63	1.50	272.75	18.25	0.00	4.00
4	RANSOM	1.50	252.50	21.00	0.00	3.00
9	WILLIAMS	1.00	252.00	16.75	0.00	2.00
7	JUPITER	1.25	268.75	23.75	0.00	3.00
2	WOODWORTH	2.00	261.50	20.00	0.00	3.19
GRAND MEAN						
		1.47	263.64	21.45	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN		0.32	12.09	2.89	0.00	0.00
COEFFICIENT OF VARIATION		43.58%	9.17%	26.91%	0.00%	0.00%
5% LSD VARIETY MEANS (*****=NS)		*****	34.45	*****	0.00	0.00
C O R R E L A T I O N S						
			(+ - PROB=.05		++ - PROB=.01)	
YIELD	KG/HA	-0.29+	0.07	0.25+	0.00	0.23
DAYS TO FLOWER		0.00	0.29+	0.20	0.00	-0.11
DAYS TO MATURITY		-0.10	0.04	0.21	0.00	0.01
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	-0.01	0.16	0.15	0.00	-0.43+
LODGING		-0.08	0.27+	0.05	0.00	-0.20
SHATTER		1.00	-0.01	-0.03	0.00	0.06
HARVEST		-0.01	1.00	-0.17	0.00	0.22
PLANTS PER PLANT		-0.03	-0.17	1.00	0.00	-0.04
PODS PER PLANT		0.00	0.00	0.00	1.00	0.00
100 SEED WEIGHT		0.06	0.22	-0.04	0.00	1.00
QUALITY OF SEED						

TABLE 193

EXPERIMENT 10

YEAR 1976

REGION - SOUTH AMERICA
 SITE - BOLICHE
 LATITUDE - 2 DEG. 21 MIN. S
 COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
 DATE PLANTED - JUNE 18, 1976
 SOIL TYPE - SAND 10%, SILT 10%, CLAY 80%, PH 6.9
 AMOUNT OF MOISTURE - 100 MM
 NUMBER OF IRRIGATIONS - 5
 LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

COUNTRY - ECUADOR
 ELEVATION - 17 M
 LONGITUDE - 79 DEG. 49 MIN. W

DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	JUPITER	4121.12	46.00	116.00	148.75	173.25	1.08	1.49	93.20	1.75
16	I.N.I.A.P.-JUPITER	3760.50	46.00	116.00	150.25	151.75	1.06	1.42	92.30	2.25
12	DAVIS	3646.02	30.00	107.00	125.00	254.25	0.83	2.14	37.55	1.00
15	MANABI	3450.36	30.00	105.00	119.00	196.50	0.65	1.76	90.50	2.75
1	CALLAND	3405.47	25.50	97.75	83.50	171.25	0.30	1.79	54.30	1.00
13	IMPROVED PELICAN	3396.05	31.25	103.00	79.25	193.00	0.47	1.23	98.15	3.00
4	RANSOM	3341.13	29.50	109.00	82.50	165.75	0.29	1.14	38.00	1.00
3	BRAGG	3338.21	29.50	98.25	61.00	101.50	0.19	0.66	36.90	1.00
8	BOSSIER	3253.98	27.00	98.25	149.25	157.50	0.43	1.18	32.30	1.00
11	COBB	3224.14	30.25	109.00	98.00	148.50	0.40	1.18	40.10	1.00
10	CLARK 63	3179.43	25.50	95.50	86.50	122.00	0.21	1.35	52.00	1.25
9	WILLIAMS	3175.01	25.50	94.00	122.50	143.75	0.32	1.27	49.30	1.00
14	FORREST	3155.05	31.00	96.00	79.50	134.00	0.28	0.80	37.95	1.00
6	PICKETT 71	2986.14	30.75	96.00	115.75	159.00	0.34	1.03	31.20	1.00
5	HILL	2842.19	30.50	95.25	92.75	133.75	0.36	0.99	38.00	1.00
2	WOODWORTH	2554.93	25.00	90.00	92.00	104.75	0.34	1.41	44.85	1.00
	GRAND MEAN	3301.86	30.83	101.63	105.34	156.91	0.47	1.30	54.16	1.38
	STANDARD ERROR OF A VARIETY MEAN	124.95	0.79	1.09	12.61	29.72	0.07	0.26	2.30	0.13
	COEFFICIENT OF VARIATION	7.57%	5.11%	2.15%	23.94%	37.88%	29.07%	39.23%	8.49%	18.38%
	5% LSC VARIETY MEANS (*****NS)	355.91	2.24	3.12	35.92	*****	0.20	0.73	6.55	0.36

C O R R E L A T I O N S
 (+ - PROB=.05 +- - PROB=.01)

YIELD	KG/HA	1.00	0.59++	0.68++	0.33++	0.25+	0.53++	0.18	0.51++	0.33++
DAYS TO FLOWER	1.00	0.59++	1.00	0.76++	0.40++	0.07	0.77++	0.01	0.58++	0.40++
DAYS TO MATURITY	0.68++	0.76++	1.00	0.32++	0.24	0.68++	0.14	0.53++	0.41++	0.41++
NODULE NUMBER 1	0.33++	0.40++	0.32++	1.00	0.40++	0.70++	0.45++	0.24	0.24	0.10
NODULE NUMBER 2	0.25+	0.07	0.24	0.40++	1.00	0.36++	0.78++	0.17	0.19	0.19
NODULE WEIGHT 1	0.53++	0.77++	0.68++	0.70++	0.36++	1.00	0.43++	0.58++	0.44++	0.44++
NODULE WEIGHT 2	0.18	0.01	0.14	0.45++	0.78++	0.43++	1.00	0.22	0.12	0.12
PLANT HEIGHT	0.51++	0.58++	0.53++	0.24	0.17	0.58++	0.22	1.00	0.87++	0.87++
LODGING	0.33++	0.40++	0.41++	0.10	0.19	0.44++	0.12	0.87++	1.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	-0.33++	-0.67++	-0.48++	-0.37++	-0.05	-0.63++	-0.10	-0.67++	-0.57++	-0.57++
PODS PER PLANT	0.55++	0.64++	0.59++	0.36++	0.30+	0.67++	0.25+	0.83++	0.78++	0.78++
100 SEED WEIGHT	0.47++	0.32+	0.52++	0.25+	0.06	0.28+	0.10	0.10	0.10	0.05
QUALITY OF SEED	0.01	-0.23	0.03	0.09	0.20	-0.07	0.24	-0.17	-0.17	-0.19

TABLE 193

EXPERIMENT 10 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	JUPITER	1.00	161.75	55.25	24.95	1.75	41.3	22.7
16	I.N.I.A.P.-JUPITER	1.00	152.00	58.50	25.33	1.50	39.6	23.3
12	DAVIS	1.00	196.25	28.48	23.03	2.00	43.2	21.6
15	MANABI	1.00	177.00	52.33	24.90	2.25	45.7	19.9
13	CALLAND	1.00	191.00	24.70	18.63	3.50	43.1	20.6
4	IMPROVED PELICAN	1.00	169.75	55.90	1.00	1.00	45.1	21.8
3	RANSOM	1.00	200.00	25.60	23.95	3.00	41.7	23.6
8	BRAGG	1.00	190.25	27.68	1.75	1.75	43.9	22.6
11	BOSSIER	1.00	186.00	28.78	22.90	2.50	44.9	22.2
10	COBB	1.00	190.25	26.23	23.80	1.50	40.9	22.9
9	CLARK 63	1.00	193.25	26.40	21.75	2.50	42.5	22.6
14	WILLIAMS	1.00	189.25	22.38	23.75	2.00	42.5	22.4
6	PORREST	1.00	191.00	30.48	19.10	1.00	41.8	22.1
5	PICKETT 71	1.00	184.25	23.40	22.60	2.00	45.1	21.5
2	HILL	1.00	189.50	24.35	21.35	2.00	41.6	21.8
	WOODWORTH	1.00	188.50	23.15	19.43	1.00	40.2	23.7

GRAND MEAN
STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% LSL VARIETY MEANS (*****=NS)

1.00 184.38 33.35 22.83 1.95
0.00 4.67 3.83 0.43 0.26
0.00% 5.06% 22.95% 3.73% 26.93%
0.00 13.29 10.90 1.21 0.75

C O R R E L A T I O N S

(+ - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	0.00	-0.33++	0.55++	0.47++	0.01
DAYS TO FLOWER		0.00	-0.67++	0.64++	0.32+	-0.23
DAYS TO MATURITY		0.00	-0.48++	0.59++	0.52++	0.03
NODULE NUMBER 1		0.00	-0.37++	0.36++	0.25+	0.09
NODULE NUMBER 2		0.00	-0.05	0.30+	0.06	0.20
NODULE WEIGHT 1		0.00	-0.63++	0.67++	0.28+	-0.07
NODULE WEIGHT 2		0.00	-0.10	0.25+	0.10	0.24
PLANT	HEIGHT	0.00	-0.67++	0.83++	0.10	-0.17
	LODGING	0.00	-0.57++	0.78++	-0.05	-0.19
	SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	-0.67++	-0.13	0.18
PODS PER	PLANT	0.00	-0.67++	1.00	0.10	-0.12
100 SEED	WEIGHT	0.00	-0.13	0.10	1.00	0.36++
QUALITY	OF SEED	0.00	0.18	-0.12	0.36++	1.00

TABLE 194

EXPERIMENT 44

YEAR 1976

REGION - SOUTH AMERICA
 SITE - PALLATANGA
 LATITUDE - 1 DEG. 59 MIN. S
 COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
 DATE PLANTED - JUNE 1, 1976
 SOIL TYPE - SAND 31%, SILT 45%, CLAY 24%, PH 6.7
 LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

COUNTRY - ECUADOR
 ELEVATION - 1 M
 LONGITUDE - 78 DEG. 58 MIN. W

DATE HARVESTED - SEPTEMBER, 1976

DATE HARVESTED - SEPTEMBER, 1976

DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
16	ESSEX	1389.24	43.00	101.00	82.75	134.75	0.67	1.53	26.30	1.00
14	FORREST	1241.83	44.00	107.00	37.00	73.75	0.32	0.93	32.55	1.00
8	BOSSIER	1192.74	43.00	101.00	68.25	64.50	0.64	1.05	25.20	1.00
1	CALLAND	1185.45	45.00	105.00	30.25	59.00	0.44	0.96	27.30	1.00
11	COBB	1146.56	45.75	101.00	35.00	45.00	0.42	0.80	25.53	1.00
13	IMPROVED PELICAN	1144.02	47.00	109.00	63.25	49.00	0.51	0.81	46.73	1.00
5	HILL	1096.84	47.00	101.00	39.00	43.75	0.41	0.63	33.70	1.00
10	CLARK 63	1020.95	43.00	101.00	74.75	65.25	0.63	1.09	27.45	1.00
12	DAVIS	968.11	47.00	103.00	63.50	87.25	0.63	1.07	25.30	1.00
2	WOODWORTH	939.73	43.00	98.25	55.00	36.25	0.48	0.78	27.13	1.00
6	PICKETT 71	932.56	43.00	97.00	48.75	49.25	0.43	0.91	22.90	1.00
4	RANSON	873.72	43.00	98.25	84.25	75.25	0.69	0.72	20.93	1.00
3	BRAGG	827.58	43.00	103.00	67.25	80.25	0.48	1.04	26.25	1.00
9	WILLIAMS	769.74	44.00	99.00	68.75	96.25	0.59	1.22	19.55	1.00
15	MANABI	724.31	45.75	106.25	81.00	106.75	0.82	1.43	30.00	1.00
7	I.N.I.A.P.-JUPITER	623.92	47.00	141.00	67.75	111.75	0.63	1.30	67.60	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% 1ST VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00								
DAYS TO FLOWER		-0.14								
DAYS TO MATURITY		0.48++								
NODULE NUMBER 1		0.48++								
NODULE NUMBER 2		-0.13								
NODULE WEIGHT 1		0.06								
NODULE WEIGHT 2		-0.05								
PLANT		0.49++								
LODGING		0.00								
SHATTER		0.00								
HARVEST		0.60++								
PODS PER PLANT		0.14								
100 SEED WEIGHT		-0.20								
QUALITY OF SEED		-0.08								

TABLE 194 EXPERIMENT 44 YEAR 1976 (CONTINUED)

ENTY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	ESSEX	1.00	156.75	20.60	12.88	2.00	39.8	20.2
14	FORREST	1.00	172.75	16.53	13.45	1.75	37.6	20.7
8	BOSSIER	1.00	143.00	19.85	13.55	1.25	41.2	19.2
1	CALLAND	1.00	163.75	15.33	16.40	2.75	41.3	19.7
11	COBB	1.00	169.00	19.40	14.38	2.25	37.2	20.3
13	IMPROVED PELICAN	1.00	188.75	17.83	11.98	1.00	40.3	20.2
5	HILL	1.00	184.25	15.68	10.30	1.50	35.7	19.9
10	CLARK 63	1.00	191.00	17.30	14.85	1.75	39.7	21.1
12	DAVIS	1.00	168.25	19.03	12.58	2.25	39.4	21.1
2	WOODWORTH	1.00	186.75	15.38	15.48	1.25	41.0	20.0
6	PICKETT 71	1.00	165.75	14.70	13.68	1.75	37.9	21.2
4	RANSOM	1.00	160.00	19.00	13.00	2.00	38.5	21.4
3	BRAGG	1.00	156.25	12.53	16.95	2.25	40.8	19.6
9	WILLIAMS	1.00	138.00	13.68	16.90	1.50	41.8	21.0
15	MANABI	1.00	102.75	17.18	15.28	2.75	45.5	17.5
7	I.N.I.A.P.-JUPITER	1.00	113.25	21.88	15.63	2.00	35.1	22.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.00	160.02	17.24	14.20	1.88		
COEFFICIENT OF VARIATION		0.00	19.00	1.90	0.55	0.38		
5% ISL VARIETY MEANS (*****=NS)		0.00	23.75% *****	22.00% 5.40	7.78% 1.57	40.25% *****		
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.60++	0.14	-0.20	-0.08		
DAYS TO FLOWER		0.00	-0.19	0.14	-0.23	0.04		
DAYS TO MATURITY		0.00	-0.35++	0.32++	0.15	0.07		
NODULE NUMBER 1		0.00	-0.28+	0.30+	0.01	-0.09		
NODULE NUMBER 2		0.00	-0.35++	0.20	0.21	0.26+		
NODULE WEIGHT 1		0.00	-0.33++	0.34++	0.04	0.01		
NODULE WEIGHT 2		0.00	-0.22	0.09	0.31+	0.22		
PLANT HEIGHT		0.00	0.01	0.23	-0.04	-0.08		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
HARVEST		0.00	1.00	-0.29+	-0.27+	-0.22		
PLANT		0.00	-0.29+	1.00	-0.20	-0.01		
PODS PER		0.00	-0.27+	-0.20	1.00	0.34++		
100 SEED		0.00	-0.22	-0.01	0.34++	1.00		
QUALITY OF SEED		0.00						

TABLE 195 EXPERIMENT 7 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - ECUADOR
 SITE - PICHILINGUE ELEVATION - 73 M
 LATITUDE - 1 DEG. 5 MIN. S LONGITUDE - 79 DEG. 27 MIN. W
 COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
 DATE PLANTED - JUNE 4, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL TYPE - SAND 90%, SILT 5%, CLAY 5%
 LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	JUPITER	3062.78	32.00	113.00	53.50	165.75	0.20	1.86	87.65	2.75
1	CALLAND	3058.82	32.00	89.00	80.25	134.25	0.37	2.17	67.65	1.25
6	PICKETT 71	2946.88	32.00	95.00	45.50	132.75	0.15	1.35	33.15	1.00
3	BAGG	2867.70	32.00	93.00	72.50	225.75	0.27	1.99	38.85	1.25
16	I.N.I.A.P.-JUPITER	2861.70	42.00	113.00	111.25	295.25	0.42	2.17	90.75	2.50
12	DAVIS	2849.32	32.00	97.00	92.75	178.25	0.45	2.16	33.60	1.00
4	RANSOM	2801.73	32.00	97.00	105.00	180.00	0.38	1.93	33.45	1.00
14	FORREST	2756.18	32.00	89.00	53.25	127.25	0.24	1.97	42.45	1.25
11	COBB	2660.41	32.00	95.00	86.75	118.50	0.37	1.78	43.10	1.00
13	IMPROVED PELICAN	2301.75	32.00	89.00	48.00	116.25	0.18	1.64	81.35	1.75
15	MANABI	2218.24	32.00	91.00	76.75	155.25	0.27	1.59	76.20	2.00
5	HILL	2111.01	32.00	89.00	38.75	98.75	0.16	1.29	42.90	1.00
9	WILLIAMS	2064.91	32.00	89.00	104.75	108.75	0.39	1.67	49.10	1.00
2	WOODWORTH	2024.86	32.00	89.00	82.25	97.75	0.36	1.43	53.35	1.00
8	BOSSIER	2000.23	32.00	91.00	76.50	130.50	0.41	1.89	34.45	1.00
10	CLARK 63	1647.83	32.00	89.00	73.00	122.75	0.31	1.45	44.70	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
(5% LSD VARIETY MEANS (*****=NS))										
CORRELATIONS										
(+ - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.15	0.48++	-0.14	0.05	-0.30+	0.09	0.16	0.27+
DAYS TO FLOWER	0.15	0.15	1.00	0.61++	0.30+	0.44++	0.19	0.17	0.47++	0.40++
DAYS TO MATURITY	0.48++	0.48++	0.61++	1.00	0.09	0.41++	0.01	0.23	0.45++	0.56++
NODULE NUMBER 1	-0.14	-0.14	0.30+	0.09	1.00	0.35++	0.84++	0.26+	0.01	-0.20
NODULE NUMBER 2	0.05	0.05	0.44++	0.41++	0.35++	1.00	0.38++	0.69++	0.11	0.08
NODULE WEIGHT 1	-0.30+	-0.30+	0.19	0.01	0.84++	0.38++	1.00	0.48++	-0.17	-0.34++
NODULE WEIGHT 2	0.09	0.09	0.17	0.23	0.26+	0.69++	0.48++	1.00	-0.04	-0.16
PLANT	HEIGHT	0.16	0.47++	0.45++	0.01	0.11	-0.17	-0.04	1.00	0.69++
LODGING	0.27+	0.27+	0.40++	0.56++	-0.20	0.08	-0.34++	-0.16	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	-0.04	-0.04	-0.30+	-0.43++	-0.07	-0.25+	-0.02	-0.11	-0.43++	-0.40++
PLANTS PER	0.54++	0.54++	0.46++	0.70++	-0.16	0.14	-0.35++	-0.03	0.62++	0.80++
100 SEED	0.57++	0.57++	0.07	0.28+	0.05	0.12	-0.05	0.09	-0.01	0.23
QUALITY	OF SEED	0.09	-0.21	-0.19	0.07	-0.17	0.00	-0.09	-0.15	-0.11

TABLE 195 EXPERIMENT 7 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	JUPITER	1.00	172.50	41.58	19.28	1.50	38.3	24.6
1	CALLAND	1.00	199.50	20.15	20.73	2.75	41.4	22.1
6	PICKETT 71	1.00	189.00	23.30	19.38	2.00	39.3	24.4
3	BRAGG	1.00	196.75	24.38	21.00	2.00	41.5	23.8
16	I.N.I.A.P.-JUPITER	1.00	171.25	39.70	19.15	1.25	39.2	23.7
12	DAVIS	1.00	186.00	21.95	18.95	1.25	39.5	23.9
4	RANSOM	1.00	192.50	22.60	19.60	2.50	39.1	25.2
14	PORREST	1.00	191.00	27.20	16.98	1.25	38.7	22.8
11	COBB	1.00	186.75	25.53	19.15	2.00	40.9	23.2
13	IMPROVED PELICAN	1.00	188.50	28.60	13.68	1.00	38.7	23.9
15	MANABI	1.00	166.00	28.88	21.30	2.25	45.7	19.8
5	HILL	1.00	191.25	21.10	17.13	1.50	36.4	23.3
9	WILLIAMS	1.00	195.25	17.35	18.35	2.00	40.0	23.1
2	WOODWORTH	1.00	186.00	19.40	17.23	2.25	37.3	24.3
8	BOSSIER	1.00	187.25	21.45	16.98	1.75	43.8	22.1
10	CLARK 63	1.00	193.75	18.18	16.95	1.75	41.6	22.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****NS)								
C O R R E L A T I O N S								
(+ - PROB=.05 +- - PROB=.01)								
YIELD	KG/HA	0.00	-0.04	0.54++	0.57++	0.09		
DAYS TO FLOWER		0.00	-0.30+	0.46++	0.07	-0.21		
DAYS TO MATURITY		0.00	-0.43++	0.70++	0.28+	-0.19		
NODULE NUMBER 1		0.00	-0.07	-0.16	0.05	0.07		
NODULE NUMBER 2		0.00	-0.25+	0.14	0.12	-0.17		
NODULE WEIGHT 1		0.00	-0.02	-0.35++	-0.05	0.00		
NODULE WEIGHT 2		0.00	-0.11	-0.03	0.09	-0.09		
PLANT HEIGHT		0.00	-0.43++	0.62++	-0.01	-0.15		
LODGING		0.00	-0.40++	0.80++	0.23	-0.11		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.41++	-0.18	0.12		
PODS PER PLANT		0.00	-0.41++	1.00	0.26+	-0.21		
100 SEED WEIGHT		0.00	-0.18	0.26+	1.00	0.40++		
QUALITY OF SEED		0.00	0.12	-0.21	0.40++	1.00		

TABLE 196

EXPERIMENT 11

YEAR 1976

REGION - SOUTH AMERICA
 SITE - PORTOVIEJO
 LATITUDE - 1 DEG. 4 MIN. S
 COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
 DATE PLANTED - SEPTEMBER 8, 1976
 SOIL PH 7.0
 AMOUNT OF MOISTURE - 280 MM
 LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

COUNTRY - ECUADOR
 ELEVATION - 30 M
 LONGITUDE - 80 DEG. 27 MIN. W
 DATE HARVESTED - DECEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	IMPROVED PELICAN	3671.23	35.50	110.50	81.25	212.75	0.32	1.75	85.45	3.00
16	I.N.I.A.P.-JUPITER	3513.79	47.00	125.00	93.75	238.25	0.43	1.59	68.25	2.25
7	JUPITER	3395.18	47.50	125.00	131.50	326.25	0.60	2.16	66.55	1.75
12	DAVIS	3334.17	31.50	112.00	88.75	287.75	0.45	2.23	36.50	1.00
1	CALLAND	3333.29	28.25	110.00	72.25	167.50	0.26	1.30	52.10	1.25
15	MANABI	2867.70	33.50	110.00	68.00	270.00	0.16	2.79	65.40	2.75
3	BAGG	2727.21	27.75	112.00	49.50	176.00	0.06	0.90	31.65	1.00
14	FORREST	2620.98	32.75	104.00	57.50	279.25	0.17	1.68	33.05	1.00
5	HILL	2578.14	33.75	103.50	46.25	141.75	0.11	0.67	28.90	1.00
10	CLARK 63	2531.55	29.50	102.75	63.25	77.75	0.11	0.41	48.95	1.50
9	WILLIAMS	2369.47	28.50	99.00	101.50	129.25	0.13	0.88	38.05	1.00
4	RANSOM	2231.40	28.25	112.00	86.75	187.25	0.13	1.11	28.35	1.00
11	COBB	2034.12	30.00	112.00	38.00	69.50	0.05	0.45	25.35	1.00
8	BOSSIER	1822.61	28.75	106.00	81.25	170.25	0.18	1.33	21.95	1.00
2	WOODWORTH	1779.73	27.50	101.00	45.00	52.00	0.04	0.31	38.25	1.50
6	PICKETT 71	1455.33	29.75	104.00	47.00	172.50	0.09	0.82	21.80	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.52++	0.53++	0.35++	0.34++	0.54++	0.37++	0.71++	0.48++
DAYS TO FLOWER	0.52++	1.00	0.77++	0.77++	0.31+	0.33++	0.56++	0.32++	0.59++	0.43++
DAYS TO MATURITY	0.53++	0.77++	1.00	1.00	0.29+	0.34++	0.52++	0.34++	0.47++	0.33++
NODULE NUMBER 1	0.35++	0.31+	0.23+	1.00	0.47++	0.47++	0.80++	0.51++	0.31+	0.10
NODULE NUMBER 2	0.34++	0.33++	0.34++	0.47++	1.00	1.00	0.86++	0.53++	0.21	0.21
NODULE WEIGHT 1	0.54++	0.56++	0.56++	0.80++	0.53++	0.53++	1.00	0.55++	0.43++	0.21
NODULE WEIGHT 2	0.37++	0.32++	0.32++	0.51++	0.86++	0.86++	0.55++	1.00	0.39++	0.34++
PLANT	0.71++	0.49++	0.49++	0.31+	0.43++	0.43++	0.39++	0.39++	1.00	0.78++
HEIGHT	0.48++	0.43++	0.43++	0.10	0.21	0.21	0.21	0.34++	0.78++	1.00
LODGING	-0.16	-0.27+	-0.16	-0.15	-0.20	-0.20	-0.05	-0.05	-0.05	0.05
SHATTER	0.20	-0.43++	-0.29+	-0.00	-0.25+	-0.25+	-0.10	-0.26+	-0.13	-0.23
PLANTS HARVEST	0.47++	0.79++	0.67++	0.22	0.43++	0.43++	0.44++	0.49++	0.68++	0.65++
PODS PER PLANT	0.30+	0.38++	0.69++	0.21	0.32++	0.32++	0.32++	0.32++	0.17	0.12
100 SEED WEIGHT	-0.11	-0.42++	-0.15	-0.10	-0.17	-0.17	-0.17	-0.11	-0.27+	-0.23
QUALITY OF SEED										

TABLE 197 EXPERIMENT 8 YEAR 1976

REGION - SOUTH AMERICA
 SITE - QUITO
 LATITUDE - 0 DEG. 22 MIN. S
 COOPERATOR - I.N.I.A.P.
 DATE PLANTED - APRIL 20, 1976
 SOIL TYPE - CLAY, PH 6.2
 AMOUNT OF MOISTURE - 808 MM
 NUMBER OF IRRIGATIONS - 3
 LOCAL VARIETIES - AMERICANA SELEC(T), JUPITER SELEC(T)
 COUNTRY - ECUADOR
 ELEVATION - 2650 M
 LONGITUDE - 78 DEG. 33 MIN. W
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	WILLIAMS	247.97	0.00	98.00	0.00	0.00	0.00	0.00	16.25	1.75
2	WOODWORTH	241.05	0.00	91.00	0.00	0.00	0.00	0.00	16.90	1.25
10	CLARK 63	160.41	0.00	98.00	0.00	0.00	0.00	0.00	13.80	1.00
6	PICKETT 71	142.57	0.00	107.00	0.00	0.00	0.00	0.00	19.50	1.00
8	BOSSIER	123.07	0.00	127.00	0.00	0.00	0.00	0.00	14.90	1.00
1	CALLAND	122.73	0.00	127.00	0.00	0.00	0.00	0.00	15.40	1.50
14	FORREST	188.00	0.00	188.00	0.00	0.00	0.00	0.00	36.55	1.00
12	DAVIS	72.01	0.00	188.00	0.00	0.00	0.00	0.00	26.95	1.00
4	RANSOM	70.97	0.00	127.00	0.00	0.00	0.00	0.00	14.00	1.00
11	COBB	56.93	0.00	127.00	0.00	0.00	0.00	0.00	16.50	1.00
3	BRAGG	42.84	0.00	142.00	0.00	0.00	0.00	0.00	14.70	1.00
7	JUPITER	36.55	0.00	156.00	0.00	0.00	0.00	0.00	42.95	1.00
16	JUPITER SELEC(T)	33.01	0.00	157.50	0.00	0.00	0.00	0.00	37.00	1.00
13	IMPROVED PELICAN	13.13	0.00	142.00	0.00	0.00	0.00	0.00	19.10	1.00
5	HILL	11.17	0.00	188.00	0.00	0.00	0.00	0.00	29.80	1.00
15	AMERICANA SELEC(T)	7.08	0.00	188.00	0.00	0.00	0.00	0.00	15.95	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN		91.23	0.00	140.72	0.00	0.00	0.00	0.00	21.89	1.09
COEFFICIENT OF VARIATION		25.43	0.00	0.38	0.00	0.00	0.00	0.00	1.86	0.12
5% LST VARIETY MEANS (*****NS)		55.75%	0.00%	0.53%	0.00%	0.00%	0.00%	0.00%	16.97%	21.28%
		72.44	0.00	1.07	0.00	0.00	0.00	0.00	5.29	0.33
CORRELATIONS (+ - PROB=.05 +- - PROB=.01)										
YIELD	KG/HA	1.00	0.00	-0.66++	0.00	0.00	0.00	0.00	-0.27+	0.38++
DAYS TO FLOWER	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	-0.66++	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.55++	-0.33++
NODULE NUMBER 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT	HEIGHT	-0.27+	0.00	0.55++	0.00	0.00	0.00	0.00	1.00	-0.22
LODGING	0.38++	0.00	0.00	-0.33++	0.00	0.00	0.00	0.00	-0.22	1.00
SHAWTER	-0.16	0.00	0.00	0.12	0.00	0.00	0.00	0.00	-0.03	-0.08
PLANTS HARVEST	0.80++	0.00	0.00	-0.77++	0.00	0.00	0.00	0.00	-0.41++	0.32+
PODS PER PLANT	0.54++	0.00	0.00	-0.48++	0.00	0.00	0.00	0.00	-0.18	-0.03
100 SEED WEIGHT	0.58++	0.00	0.00	-0.47++	0.00	0.00	0.00	0.00	-0.19	0.44++
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 197 EXPERIMENT 8 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	WILLIAMS	1.75	207.75	4.25	15.20	0.00	43.9	17.8
2	WOODWORTH	2.00	207.00	6.95	10.95	0.00	44.7	15.8
10	CLARK 63	1.00	203.50	5.47	12.48	0.00	43.2	17.9
6	PICKETT 71	3.00	183.50	7.35	9.13	0.00	46.0	15.6
8	BOSSIER	3.00	169.25	7.25	9.40	0.00	48.0	14.0
1	CALLAND	3.25	183.50	4.15	14.78	0.00	44.5	15.6
14	FORREST	2.25	114.00	3.58	11.13	0.00	42.0	16.7
12	DAVIS	2.50	86.50	4.62	9.55	0.00	44.0	14.5
4	RANSOM	2.75	122.75	4.55	10.83	0.00	43.6	15.3
11	COBB	4.00	169.25	8.40	8.75	0.00	42.4	15.2
3	BRAGG	1.25	109.25	3.58	11.10	0.00	46.6	15.1
7	JUPITER	2.00	56.75	4.30	9.47	0.00	46.5	14.3
16	JUPITER SELEC(T)	2.25	63.75	3.10	9.67	0.00	46.5	15.2
13	IMPROVED PELICAN	2.25	61.25	4.00	10.53	0.00	47.8	16.2
5	HILL	3.00	35.50	2.40	7.62	0.00	43.8	15.7
15	AMERICANA SELEC(T)	2.50	13.25	0.67	7.50	0.00	--	--
	GRAND MEAN	2.42	124.17	4.66	10.50	0.00		
	STANDARD ERROR OF A VARIETY MEAN	0.37	17.98	1.06	0.74	0.00		
	COEFFICIENT OF VARIATION	30.82%	28.96%	45.60%	14.03%	0.00%		
	5% LSD VARIETY MEANS (*****=NS)	1.06	51.21	3.03	2.11	0.00		
C O R R E L A T I O N S								
	YIELD KG/HA	-0.16	0.80++	0.54++	0.58++	0.00		
	DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00		
	DAYS TO MATURITY	0.12	-0.77++	-0.48++	-0.47++	0.00		
	NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00		
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00		
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
	PLANT HEIGHT	-0.03	-0.41++	-0.18	-0.19	0.00		
	LODGING	-0.08	0.32+	-0.03	0.44++	0.00		
	SHATTER	1.00	0.07	0.19	-0.23	0.00		
	HARVEST	0.07	1.00	0.65++	0.57++	0.00		
	PLANTS PER PLANT	0.19	0.65++	1.00	0.19	0.00		
	100 SEED WEIGHT	-0.23	0.57++	0.19	1.00	0.00		
	QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00		

TABLE 198 EXPERIMENT 155 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - PARAGUAY
 SITE - CAACUPE ELEVATION - 228 M
 LATITUDE - 25 DEG. 24 MIN. S LONGITUDE - 57 DEG. 6 MIN. W
 COOPERATORS - R. CASACCIA, O. AGUILERA, J. LOPEZ
 DATE PLANTED - DECEMBER 10, 1976 DATE HARVESTED - MARCH, 1977
 SOIL TYPE - SAND 52.4%, SILT 25.6%, CLAY 22%, PH 5.7
 FERTILIZER USED (KG/HA) - P 35.0, K 66.0
 AMOUNT OF MOISTURE - 771 MM
 NUMBER OF IRRIGATIONS - 1 (8 MM)
 LOCAL VARIETIES - GALAXIA, VISOJA

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
16	VISOJA	2835.98	56.00	157.75	167.25	272.25	1.08	1.24	98.75	1.00
15	GALAXIA	2508.83	42.00	124.00	162.25	298.25	1.41	1.60	70.50	1.00
11	DAVIS	2410.90	46.00	142.75	248.25	211.50	1.27	0.94	78.25	1.00
3	BRAGG	2383.81	40.50	157.00	174.50	321.75	1.29	0.76	75.00	1.00
8	BOSSIER	2340.05	41.00	150.75	179.00	323.50	1.96	1.21	72.50	1.00
12	FORREST	2206.69	39.00	130.25	131.00	180.75	0.58	0.74	68.50	1.25
5	HILL	2102.50	41.00	128.50	133.00	193.50	0.68	0.80	72.50	1.00
6	PICKETT 71	1994.15	41.00	157.00	116.75	197.00	1.08	0.80	53.25	1.25
4	RANSOM	1960.81	39.00	157.00	197.25	289.75	0.72	1.08	54.75	1.00
1	CALLAND	1856.62	27.00	128.25	67.50	142.75	0.12	1.12	76.25	1.00
7	CUTLER 71	1373.19	31.00	140.50	120.25	161.00	0.30	1.14	77.00	1.00
10	CLARK 63	1348.19	31.00	118.00	63.75	207.50	0.10	1.25	65.00	1.00
9	WILLIAMS	1323.18	27.00	126.75	116.00	155.75	0.12	0.67	67.00	1.00
2	WOODWORTH	993.95	27.00	98.00	88.25	98.00	0.08	0.64	70.50	1.00
14	BEESON	766.82	27.00	140.00	75.00	69.50	0.08	0.67	60.50	1.25
13	WELLS	718.89	27.00	125.50	73.75	165.50	0.13	0.78	53.50	1.00
GRAND MEAN		1820.29	36.41	136.38	132.11	205.52	0.69	0.97	69.61	1.05
STANDARD ERROR OF A VARIETY MEAN		207.01	0.13	6.11	27.42	38.59	0.22	0.20	3.64	0.11
COEFFICIENT OF VARIATION		22.74%	0.69%	8.96%	41.51%	37.55%	63.98%	42.06%	10.46%	21.14%
5% ISI VARIETY MEANS (*****=NS)		589.64	0.36	17.41	78.11	109.92	0.63	*****	10.37	*****
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
YIELD		KG/HA	0.77++	0.35++	0.55++	0.55++	0.63++	0.41++	0.51++	0.03
DAYS TO FLOWER		1.00	1.00	0.51++	0.52++	0.47++	0.62++	0.21	0.45++	-0.02
DAYS TO MATURITY		0.35++	0.51++	1.00	0.40++	0.40++	0.43++	0.10	0.12	0.02
NODULE NUMBER 1		0.55++	0.52++	0.40++	1.00	0.70++	0.69++	0.42++	0.29+	0.02
NODULE NUMBER 2		0.55++	0.47++	0.40++	0.70++	1.00	0.72++	0.57++	0.20	-0.11
NODULE WEIGHT 1		0.63++	0.62++	0.43++	0.69++	0.72++	1.00	0.40++	0.25+	0.13
NODULE WEIGHT 2		0.41++	0.21	0.10	0.42++	0.57++	0.40++	1.00	0.23	-0.06
PLANT		0.51++	0.45++	0.12	0.29+	0.20	0.23	1.00	0.03	-0.03
LOGGING		0.03	-0.02	0.02	0.02	-0.11	0.13	-0.06	-0.03	1.00
SHATTER		-0.19	-0.27+	0.11	-0.14	-0.15	-0.20	0.06	-0.21	0.19
HARVEST		0.19	0.12	0.15	0.21	0.11	0.14	0.14	0.16	0.07
PLANTS		0.59++	0.59++	0.04	0.18	0.23	0.38++	0.29+	0.44++	-0.07
PODS PER		0.18	-0.02	0.24	0.20	0.20	0.09	0.27+	0.07	-0.17
100 SEED		-0.58++	-0.43++	0.01	-0.46++	-0.55++	-0.52++	-0.42++	-0.40++	0.09
QUALITY OF SEED										

TABLE 198 EXPERIMENT 155 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	VISOJA	1.00	193.25	48.90	16.05	2.00	44.3	20.2
15	GALAXIA	1.00	164.25	41.32	18.41	2.25	43.7	21.1
11	DAVIS	1.25	258.25	29.83	19.55	2.50	42.1	22.1
3	BRAGG	1.00	257.00	25.28	18.64	2.25	43.0	22.2
8	BOSSIER	1.25	163.75	36.08	18.15	2.25	44.9	20.7
12	FORREST	1.25	163.00	35.87	13.85	3.50	42.0	21.7
5	HILL	1.00	236.75	25.87	15.95	2.25	42.0	20.7
6	PICKETT 71	1.50	179.75	25.97	17.91	3.25	44.0	22.3
4	RANSOM	1.50	218.25	18.40	18.98	3.00	42.2	24.6
1	CALLAND	1.50	189.75	23.35	21.41	3.25	42.7	20.9
7	CUTLER 71	1.25	188.25	25.58	19.05	3.00	43.7	21.7
10	CLARK 63	1.25	217.25	21.72	17.37	2.75	39.5	23.2
9	WILLIAMS	1.50	179.25	24.50	17.80	3.00	42.9	21.2
2	WOODWORTH	1.00	184.75	23.17	14.78	2.50	41.2	22.2
14	BEESON	1.75	200.75	17.40	16.72	4.50	43.5	21.0
13	WELLS	1.50	189.50	22.83	15.81	4.50	42.1	22.9
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN		1.28	198.98	27.88	17.53	2.92		
COEFFICIENT OF VARIATION		0.22	22.86	3.85	0.66	0.41		
5% LSD VARIETY MEANS (*****=NS)		33.80% *****	22.98% *****	27.61% *****	7.52% *****	28.21% *****		
C O R R E L A T I O N S								
		(+ - PROB=.05		++ - PROB=.01)				
YIELD	KG/HA	-0.19	0.19	0.59++	0.18	-0.58++		
DAYS TO FLOWER		-0.27+	0.12	0.59++	-0.02	-0.43++		
DAYS TO MATURITY		0.11	0.15	0.04	0.24	0.01		
NODULE NUMBER 1		-0.14	0.21	0.18	0.20	-0.46++		
NODULE NUMBER 2		-0.15	0.11	0.23	0.20	-0.55++		
NODULE WEIGHT 1		-0.20	0.14	0.38++	0.09	-0.52++		
NODULE WEIGHT 2		0.06	0.14	0.29+	0.27+	-0.42++		
PLANT	HEIGHT	-0.21	0.16	0.44++	0.07	-0.46++		
LODGING		0.19	0.17	-0.07	-0.17	0.09		
SHATTER		1.00	0.10	-0.25+	0.06	0.31+		
PLANTS	HARVEST	0.10	1.00	-0.27+	0.02	-0.12		
PODS PER	PLANT	-0.25+	-0.27+	1.00	-0.04	-0.47++		
100 SEED	WEIGHT	0.06	0.02	-0.04	1.00	-0.09		
QUALITY	OF SEED	0.31+	-0.12	-0.47++	-0.09	1.00		

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TABLE 199 EXPERIMENT 156 YEAR 1976

REGION - SOUTH AMERICA
SITE - CAPITAN-MIRANDA
COOPERATOR - S. PANIAGUA S.
COUNTRY - PARAGUAY

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	WILLIAMS	1671.17	0.00	0.00	0.00	0.00	0.00	0.00	62.00	0.00
1	CALLAND	1667.00	0.00	0.00	0.00	0.00	0.00	0.00	70.00	0.00
8	BOSSIER	1629.49	0.00	0.00	0.00	0.00	0.00	0.00	59.00	0.00
4	RANSOM	1600.32	0.00	0.00	0.00	0.00	0.00	0.00	55.00	0.00
10	CLARK 63	1537.81	0.00	0.00	0.00	0.00	0.00	0.00	62.75	0.00
6	PICKETT 71	1487.80	0.00	0.00	0.00	0.00	0.00	0.00	45.75	0.00
2	WOODWORTH	1452.37	0.00	0.00	0.00	0.00	0.00	0.00	65.25	0.00
7	CUTLER 71	1433.62	0.00	0.00	0.00	0.00	0.00	0.00	67.25	0.00
3	BRAGG	1425.28	0.00	0.00	0.00	0.00	0.00	0.00	71.25	0.00
16	ESSEX	1391.94	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00
15	COLUMBUS	1346.10	0.00	0.00	0.00	0.00	0.00	0.00	67.75	0.00
11	DAVIS	1346.10	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00
14	BEESON	1339.85	0.00	0.00	0.00	0.00	0.00	0.00	53.00	0.00
12	FORREST	1308.59	0.00	0.00	0.00	0.00	0.00	0.00	58.00	0.00
5	HILL	1202.32	0.00	0.00	0.00	0.00	0.00	0.00	62.75	0.00
13	WELLS	1175.23	0.00	0.00	0.00	0.00	0.00	0.00	46.00	0.00
	GRAND MEAN	1438.44	0.00	0.00	0.00	0.00	0.00	0.00	61.92	0.00
	STANDARD ERROR OF A VARIETY MEAN	55.13	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00
	COEFFICIENT OF VARIATION	7.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.85%	0.00%
	5% 1ST VARIETY MEANS (*****=NS)	157.04	0.00	0.00	0.00	0.00	0.00	0.00	6.04	0.00
C O R R E L A T I O N S (+ - PROB=.05 +- - PROB=.01)										
	YIELD	KG/HA	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00
	DAYS TO FLOWER	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	DAYS TO MATURITY	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
	PLANT	HEIGHT	0.14	0.00	0.00	0.00	0.00	0.00	1.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HARVEST	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00
	PLANTS	PER	-0.06	0.00	0.00	0.00	0.00	0.00	-0.05	0.00
	PODS PER	PLANT	0.31+	0.00	0.00	0.00	0.00	0.00	0.45++	0.00
	100 SEED	WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	QUALITY	OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 199 EXPERIMENT 156 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
9	WILLIAMS	0.00	176.75	18.60	15.00	0.00
1	CALLAND	0.00	173.25	17.33	14.75	0.00
8	BOSSIER	0.00	73.75	44.28	14.25	0.00
4	RANSON	0.00	152.00	21.30	13.13	0.00
10	CLARK 63	0.00	167.50	18.23	13.13	0.00
6	PICKETT 71	0.00	106.25	32.10	12.75	0.00
2	WOODWORTH	0.00	176.75	20.43	12.50	0.00
7	CUTLER 71	0.00	154.25	21.05	14.00	0.00
3	BRAGG	0.00	192.25	23.10	13.75	0.00
16	ESSEX	0.00	138.50	31.60	14.63	0.00
15	COLUMBUS	0.00	84.00	38.68	14.75	0.00
11	DAVIS	0.00	181.50	22.75	14.75	0.00
14	BEESON	0.00	175.50	18.28	14.50	0.00
12	FORREST	0.00	91.75	52.00	10.50	0.00
5	HILL	0.00	100.50	27.13	13.13	0.00
13	WELLS	0.00	156.75	19.50	10.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	143.83	26.65	13.47	0.00
COEFFICIENT OF VARIATION		0.00%	8.01	3.09	0.54	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	11.14%	23.18%	7.99%	0.00%
		0.00	22.81	8.80	1.53	0.00
C O R R E L A T I O N S						
			(+ - PROB=.05		+ + - PROB=.01)	
YIELD	KG/HA	0.00	0.16	-0.06	0.31+	0.00
DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.00	0.00	0.00	0.00	0.00
LODGING		0.00	0.19	-0.05	0.45++	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	1.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	1.00	-0.73++	0.12	0.00
100 SEED WEIGHT		0.00	-0.73++	1.00	-0.13	0.00
QUALITY OF SEED		0.00	0.12	-0.13	1.00	0.00
		0.00	0.00	0.00	0.00	1.00

TABLE 200 EXPERIMENT 291

YEAR 1976

REGION - SOUTH AMERICA
 SITE - BAGUA
 LATITUDE - 5 DEG. 40 MIN. S
 COOPERATOR - CESAR ARCAYA MACEDA
 DATE PLANTED - SEPTEMBER 23, 1976
 SOIL TYPE - CLAY, PH 8.3
 AMOUNT OF MOISTURE - 118 MM
 NUMBER OF IRRIGATIONS - 3
 SUBSTITUTE VARIETY - IMPROVED PELICAN

COUNTRY - PERU
 ELEVATION - 517 M
 LONGITUDE - 78 DEG. 36 MIN. W

DATE HARVESTED - JANUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	PICKETT 71	2989.50	22.75	95.25	6.75	17.75	0.40	1.48	58.25	1.25
8	JUPIER	2888.75	27.25	109.75	9.25	17.00	0.72	2.00	34.00	1.00
14	IMPROVED PELICAN	2658.25	20.50	94.00	6.75	15.00	0.42	1.55	39.00	1.00
9	BOSSIER	2635.25	27.00	98.50	7.00	13.75	0.43	1.50	42.50	1.25
11	CLARK 63	2629.25	24.50	94.00	7.50	12.00	0.72	1.33	37.00	1.00
1	CALLAND	2612.50	22.75	98.00	7.75	15.50	0.77	2.20	36.00	1.00
3	BAGG	2605.50	27.75	94.50	6.50	14.00	0.48	1.70	50.00	1.25
15	FORREST	2546.00	24.75	98.50	8.75	15.75	0.65	1.25	35.00	1.00
2	WOODWORTH	2508.25	21.75	99.50	7.75	15.50	0.35	2.08	36.00	2.00
4	RANSOM	2441.75	24.25	106.00	8.75	12.75	0.48	1.63	32.25	1.25
5	HILL	2393.75	24.75	95.25	9.25	16.25	0.50	2.60	46.00	1.25
16	IMPROVED PELICAN (PERU)	2375.25	35.25	94.75	7.00	14.00	0.25	0.75	40.75	1.00
7	CUTLER 71	2316.75	28.50	101.00	8.50	22.25	0.72	1.85	50.25	1.25
10	WILLIAMS	2283.50	22.00	95.00	8.00	12.25	0.53	1.18	36.25	2.00
12	COBB	2144.25	23.25	101.50	11.00	17.75	0.60	1.60	35.00	1.00
13	DAVIS	2141.00	21.50	95.25	6.00	10.25	0.43	1.55	40.50	1.00
	GRAND MEAN	2510.59	24.91	98.17	7.91	15.11	0.53	1.64	40.55	1.22
	STANDARD ERROR OF A VARIETY MEAN	420.18	0.95	0.87	1.72	3.13	0.18	0.47	8.50	0.13
	COEFFICIENT OF VARIATION	33.47%	7.65%	1.77%	43.54%	41.49%	69.04%	56.98%	41.93%	20.51%
	5% LSE VARIETY MEANS (*****=NS)	*****	2.71	2.48	*****	*****	*****	*****	*****	0.36
C O R R E L A T I O N S										
	YIELD	1.00								
	DAYS TO FLOWER	-0.04	-0.04	0.08	0.33+	0.34++	0.28+	0.20	0.27+	-0.06
	DAYS TO MATURITY	0.08	1.00	0.13	0.02	0.13	-0.09	-0.08	0.05	-0.17
	NODULE NUMBER 1	0.33++	0.02	0.28+	1.00	0.44++	0.51++	0.16	-0.16	-0.04
	NODULE NUMBER 2	0.34++	0.13	0.22	0.44++	1.00	0.35++	0.13	-0.05	-0.01
	NODULE WEIGHT 1	0.28+	-0.09	0.16	0.51++	0.35++	1.00	0.40++	0.23	-0.05
	NODULE WEIGHT 2	0.20	-0.08	0.16	0.13	0.40++	0.34++	0.34++	0.04	-0.13
	PLANT HEIGHT	0.27+	0.05	-0.16	-0.05	0.23	0.04	1.00	0.24	-0.14
	LODGING	-0.06	-0.17	-0.04	-0.01	-0.05	-0.13	0.06	-0.14	1.00
	SHATTER	0.04	0.25+	0.03	-0.01	0.10	-0.02	0.03	0.24	-0.38+
	PLANTS PER HARVEST	-0.27+	-0.11	-0.27+	-0.03	-0.17	0.13	-0.03	-0.09	0.07
	PODS PER PLANT	0.49++	0.11	0.14	-0.01	0.34++	-0.13	0.09	0.28+	-0.10
	100 SEED WEIGHT	0.32++	-0.20	0.25+	0.18	0.26+	0.15	0.21	-0.04	-0.25+
	QUALITY OF SEED	-0.05	-0.22	-0.25	0.03	-0.13	0.02	-0.05	-0.10	0.27+

(* - PROB=-.05 ** - PROB=-.01)

TABLE 200 EXPERIMENT 291 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	PICKETT 71	1.75	166.50	32.50	19.75	2.00
8	JUPITER	1.00	131.00	40.00	20.00	1.00
14	IMPROVED PELICAN	1.00	172.25	36.75	19.00	1.00
9	BOSSIER	1.75	201.00	21.25	17.50	2.00
11	CLARK 63	1.00	215.25	22.75	17.75	4.00
1	CALLAND	2.00	166.50	17.50	18.25	2.00
3	BRAGG	1.00	177.25	25.00	16.50	1.75
15	FORREST	1.00	210.25	17.25	19.50	3.00
2	WOODWORTH	1.00	177.00	18.25	18.25	4.00
4	RANSON	1.75	158.25	25.75	18.75	2.00
5	HILL	1.75	186.00	17.50	18.25	2.00
16	IMPROVED PELICAN (PERU)	1.75	158.25	27.25	17.50	2.00
7	CUTLER 71	1.75	177.25	33.75	17.75	2.00
10	WILLIAMS	1.00	180.00	25.50	16.00	3.00
12	COBB	1.00	192.00	19.75	19.25	2.50
13	DAVIS	1.00	190.75	18.00	19.00	3.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.34	178.72	24.92	18.31	2.33
COEFFICIENT OF VARIATION		0.14	15.93	8.92	1.20	0.14
5% LSD VARIETY MEANS (*****=NS)		20.57%	17.82%	71.58%	13.12%	12.32%
		0.39	*****	*****	*****	0.41
C O R R E L A T I O N S (+ - PROB=.05) ++ - PROB=.01)						
YIELD	KG/HA	0.04	-0.27+	0.49++	0.32++	-0.05
DAYS TO FLOWER		0.25+	-0.11	0.11	-0.20	-0.22
DAYS TO MATURITY		0.03	-0.27+	0.14	0.25+	-0.25
NODULE NUMBER 1		-0.01	-0.03	-0.01	0.18	0.03
NODULE NUMBER 2		0.10	-0.17	0.34++	0.26+	-0.13
NODULE WEIGHT 1		-0.02	0.13	-0.13	0.15	0.02
NODULE WEIGHT 2		0.03	-0.03	0.09	0.21	-0.05
PLANT	HEIGHT	0.24	-0.09	0.28+	-0.04	-0.10
LODGING		-0.38++	0.07	-0.10	-0.25+	0.27+
SHATTER		1.00	-0.20	0.05	0.03	-0.27+
HARVEST		-0.20	1.00	-0.68++	-0.25+	0.36++
PLANT		0.05	-0.68++	1.00	0.22	-0.25+
PODS PER		0.03	-0.25+	0.22	1.00	-0.11
100 SEED		-0.27+	0.36++	-0.25+	-0.11	1.00
QUALITY	OF SEED					

TABLE 201 EXPERIMENT 372 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - PERU
 SITE - LA VINA ELEVATION - 251 M
 LATITUDE - 12 DEG. 5 MIN. S LONGITUDE - 76 DEG. 57 MIN. W
 COOPERATOR - H. SOPLIN V.
 DATE PLANTED - FEBRUARY 12, 1977 DATE HARVESTED - JUNE, 1977
 SOIL TYPE - SAND 69.8%, SILT 17.8%, CLAY 12.4%, PH 8.0
 FERTILIZER USED (KG/HA) - N 25.0, P 80.0, K 30.0
 NUMBER OF IRRIGATIONS - 10

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	JUPITER	3063.11	41.00	113.50	69.50	66.25	0.34	0.78	71.37	2.75
13	DAVIS	2435.90	31.00	102.00	24.75	24.75	0.21	1.19	26.10	1.00
16	COLUMBUS	2077.50	32.50	105.00	16.00	74.25	0.17	1.47	43.20	1.75
11	CLARK 63	2060.83	30.75	103.50	30.75	43.50	0.30	1.18	44.35	1.00
10	WILLIAMS	1850.37	34.00	89.75	14.75	116.25	0.12	1.60	40.43	1.00
1	CALLAND	1842.03	34.00	98.00	11.25	79.00	0.09	1.10	46.25	1.25
7	CUTLER 71	1748.27	36.25	101.00	22.75	50.75	0.18	1.55	43.90	1.50
3	BRAGG	1733.68	29.00	98.00	7.75	25.75	0.08	0.56	28.00	1.00
14	IMPROVED PELICAN	1652.41	43.50	100.25	12.25	19.50	0.08	0.44	63.60	1.00
15	FORREST	1529.47	28.50	92.00	16.00	47.50	0.10	0.77	28.60	1.50
4	RANSOM	1475.29	40.00	108.00	19.50	39.00	0.23	0.98	23.38	1.00
2	WOODWORTH	1111.06	34.00	90.00	9.25	39.50	0.11	0.59	38.60	1.00
5	HILL	1081.47	35.00	106.00	23.25	35.50	0.18	0.57	26.23	1.00
12	COBB	806.41	32.00	111.00	21.75	45.75	0.12	0.87	21.60	1.00
6	PICKETT 71	798.08	33.75	110.00	15.75	35.25	0.06	1.99	19.53	1.00
9	BOSSIER	754.32	40.50	110.00	23.50	37.00	0.16	1.15	18.53	1.00
GRAND MEAN										
1626.26										
STANDARD ERROR OF A VARIETY MEAN										
198.50										
COEFFICIENT OF VARIATION										
24.41%										
5% 1SD VARIETY MEANS (*****=NS)										
565.41										
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.02	-0.03	0.57++	0.29+	0.55++	0.06	0.61++	0.44++
DAYS TO FLOWER	0.02	1.00	0.35++	0.28+	0.28+	-0.04	0.15	-0.12	0.38++	0.16
DAYS TO MATURITY	-0.03	0.35++	1.00	0.51++	0.51++	-0.21	0.39++	0.08	-0.10	0.27+
NODULE NUMBER 1	0.57++	0.28+	0.51++	1.00	0.10	0.10	0.82++	0.02	0.43++	0.59++
NODULE NUMBER 2	0.29+	-0.04	-0.21	0.10	0.10	1.00	0.00	0.47++	0.26+	0.18
NODULE WEIGHT 1	0.55++	0.15	0.39++	0.82++	0.82++	0.00	1.00	0.00	0.28+	0.37++
NODULE WEIGHT 2	0.06	-0.12	0.08	0.02	0.02	0.47++	0.00	1.00	-0.13	-0.02
PLANT	0.61++	0.38++	-0.10	0.43++	0.43++	0.26+	0.28+	-0.13	1.00	0.55++
LODGING	0.44++	0.16	0.27+	0.59++	0.59++	0.18	0.37++	-0.02	0.55++	1.00
SHATTER	-0.10	-0.10	-0.24	-0.26+	-0.26+	0.31+	-0.26+	0.42++	-0.16	-0.12
HARVEST	0.72++	-0.23	-0.29+	0.34++	0.34++	0.25+	0.43++	0.06	0.47++	0.23
PODS PER PLANT	0.42++	0.33++	0.03	0.40++	0.40++	-0.14	0.36++	-0.34++	0.76++	0.33++
100 SEED WEIGHT	0.35++	0.01	0.15	0.47++	0.47++	0.37++	0.34++	0.34++	0.19	0.16
QUALITY OF SEED	0.09	-0.13	0.11	0.15	0.15	-0.13	0.25+	0.16	-0.21	0.15

TABLE 201 EXPERIMENT 372 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	JUPITER	1.00	134.25	66.90	22.08	2.25
13	DAVIS	1.75	121.50	34.98	20.73	2.00
16	COLUMBUS	2.25	88.00	42.70	16.14	2.00
11	CLARK 63	1.00	142.25	63.13	20.73	2.00
10	WILLIAMS	2.00	131.00	25.05	21.50	1.50
1	CALLAND	1.75	96.50	43.58	22.46	1.50
7	CUTLER 71	2.00	114.00	34.15	19.96	2.75
3	BRAGG	1.25	108.25	29.45	14.44	2.50
14	IMPROVED PELICAN	1.00	82.25	72.23	15.89	1.00
15	FORREST	1.25	98.00	42.53	16.82	2.25
4	RANSOM	1.00	74.50	30.00	16.10	2.50
2	WOODWORTH	2.00	101.50	44.80	16.46	1.75
5	HILL	1.25	70.00	47.53	21.24	1.75
12	COBB	1.25	62.50	24.05	17.63	1.50
6	PICKETT 71	2.00	61.75	27.15	21.08	2.25
9	BOSSIER	2.00	48.50	29.43	17.59	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.55	95.92	41.10	18.80	1.97
COEFFICIENT OF VARIATION		0.17	12.50	1.65	0.46	0.30
5% 1ST VARIETY MEANS (*****=NS)		21.72%	26.06%	8.01%	4.84%	30.11%
		0.48	35.60	4.69	1.30	0.84
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	-0.10	0.72++	0.42++	0.35++	0.09
DAYS TO FLOWER		-0.10	-0.23	0.33++	0.01	-0.13
DAYS TO MATURITY		-0.24	-0.29+	0.03	0.15	0.11
NODULE NUMBER 1		-0.26+	0.34++	0.40++	0.47++	0.15
NODULE NUMBER 2		0.31+	0.25+	-0.14	0.37++	-0.13
NODULE WEIGHT 1		-0.26+	0.43++	0.36++	0.34++	0.25+
NODULE WEIGHT 2		0.42++	0.06	-0.34++	0.34++	0.16
PLANT	HEIGHT	-0.16	0.47++	0.76++	0.19	-0.21
LODGING		-0.12	0.23	0.33++	0.16	0.15
SHATTER		1.00	-0.03	-0.42++	0.09	0.00
PLANTS	HARVEST	-0.03	1.00	0.30+	0.31+	0.05
PODS PER	PLANT	-0.42++	0.30+	1.00	0.10	-0.18
100 SEED	WEIGHT	0.09	0.31+	0.10	1.00	-0.01
QUALITY	OF SEED	0.00	0.05	-0.18	-0.01	1.00

TABLE 202 EXPERIMENT 370 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - PERU
 SITE - LIMA ELEVATION - 238 M
 LATITUDE - 12 DEG. 5 MIN. S LONGITUDE - 76 DEG. 57 MIN. W
 COOPERATORS - JOSE BRUNO, RUPINO MONTALVO
 DATE PLANTED - JANUARY 27, 1977 DATE HARVESTED - JUNE, 1977
 SOIL TYPE - SAND 50.2%, SILT 26%, CLAY 23.8%, PH 7.8
 AMOUNT OF MOISTURE - 302 MM
 NUMBER OF IRRIGATIONS - 5 (300 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	DAVIS	3358.59	31.00	95.00	0.00	186.75	0.00	2.75	29.25	1.00
8	JUPITER	3283.99	35.50	123.00	0.00	165.50	0.00	2.75	67.25	1.50
15	FORREST	2847.24	31.50	91.50	0.00	164.25	0.00	2.50	29.50	1.00
14	IMPROVED PELICAN	2774.30	37.00	96.25	0.00	104.00	0.00	1.25	67.75	1.00
1	CALLAND	2627.61	30.00	93.50	0.00	168.50	0.00	2.50	34.00	1.00
11	CLARK 63	2511.75	31.00	88.00	0.00	118.50	0.00	1.50	39.50	1.00
6	PICKETT 71	2400.90	30.00	90.00	0.00	152.25	0.00	2.50	23.00	1.00
5	HILL	2262.54	33.50	89.75	0.00	98.25	0.00	1.50	29.50	1.00
4	RANSON	2226.70	30.00	89.75	0.00	217.25	0.00	2.75	25.75	1.00
7	CUTLER 71	2120.42	31.50	90.00	0.00	171.50	0.00	2.25	40.50	1.00
12	COBB	2031.66	31.50	92.50	0.00	123.25	0.00	1.50	29.50	1.00
16	COLUMBUS	1995.40	31.00	76.25	0.00	144.75	0.00	2.00	31.25	1.00
10	WILLIAMS	1984.56	30.50	88.00	0.00	157.25	0.00	2.00	35.75	1.00
2	WOODWORTH	1680.34	31.00	82.00	0.00	131.75	0.00	1.75	33.50	1.00
3	BAGG	1467.38	30.00	89.00	0.00	128.50	0.00	1.00	23.50	1.00
9	BOSSIER	1247.33	30.00	88.00	0.00	156.25	0.00	1.50	19.75	1.00
GRAND MEAN		2301.29	31.56	91.41	0.00	149.28	0.00	2.00	34.95	1.03
STANDARD ERROR OF A VARIETY MEAN		185.78	0.64	3.80	0.00	27.38	0.00	0.40	2.83	0.07
COEFFICIENT OF VARIATION		16.15%	4.04%	8.31%	0.00%	36.68%	0.00%	40.23%	16.21%	14.00%
5% LSI VARIETY MEANS (*****=NS)		529.17	1.81	10.82	0.00	*****	0.00	1.15	8.07	0.21
C O R R E L A T I O N S (+ - PROB=-.05 ++ - PROB=-.01)										
YIELD	KG/HA	1.00	0.28+	0.41++	0.00	0.23	0.00	0.31+	0.48++	0.28+
DAYS TO FLOWER		0.28+	1.00	0.38++	0.00	-0.16	0.00	0.01	0.73++	0.19
DAYS TO MATURITY		0.41++	0.38++	1.00	0.00	-0.00	0.00	0.12	0.49++	0.50++
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.23	-0.16	0.00	0.00	1.00	0.00	0.71++	-0.04	0.08
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.31+	0.01	0.12	0.00	0.71++	0.00	1.00	0.07	0.29+
PLANT HEIGHT		0.48++	0.73++	0.49++	0.00	-0.04	0.00	0.07	1.00	0.38++
LODGING		0.28+	0.19	0.50++	0.00	0.08	0.00	0.29+	0.38++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST		0.45++	-0.10	0.19	0.00	0.16	0.00	0.09	0.05	0.04
PLANTS PER 100 SEED		0.58++	0.70++	0.65++	0.00	0.10	0.00	0.27+	0.76++	0.56++
PLANT WEIGHT		0.01	-0.55++	-0.03	0.00	0.27+	0.00	0.19	-0.30+	-0.00
QUALITY OF SEED		-0.11	-0.45++	-0.29+	0.00	0.25+	0.00	0.10	-0.26+	-0.17

TABLE 202 EXPERIMENT 370 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	DAVIS	1.00	207.00	33.75	17.00	1.00
8	JUPITER	1.00	191.50	82.50	17.00	1.00
15	FORREST	1.00	170.00	29.25	15.25	1.00
14	IMPROVED PELICAN	1.00	133.50	48.00	12.25	1.00
1	CALLAND	1.00	168.75	21.25	20.50	2.00
11	CLARK 63	1.00	200.00	21.00	17.25	2.00
6	PICKETT 71	1.00	153.25	25.00	17.75	1.75
5	HILL	1.00	158.50	26.50	15.50	1.25
4	RANSOM	1.00	191.50	22.25	17.00	2.00
7	CUTLER 71	1.00	196.25	23.25	19.00	1.75
12	COBB	1.00	152.50	26.75	16.75	1.00
16	COLUMBUS	1.00	136.25	24.50	17.25	1.50
10	WILLIAMS	1.00	174.50	18.25	19.25	1.75
2	WOODWORTH	1.00	177.00	17.00	15.00	1.00
3	BRAGG	1.00	196.50	14.75	18.75	1.50
9	BOSSIER	1.00	122.00	19.25	16.75	2.00
GRAND MEAN						
		1.00	170.56	28.33	17.02	1.47
STANDARD ERROR OF A VARIETY MEAN						
		0.00	16.59	3.33	0.53	0.15
COEFFICIENT OF VARIATION						
		0.00%	19.45%	23.54%	6.21%	20.77%
5% ISL VARIETY MEANS (*****=NS)						
		0.00	47.25	9.50	1.50	0.43
C O R R E L A T I O N S						
			(+ - PROB=.05	++ - PROB=.01)		
YIELD	KG/HA	0.00	0.45++	0.58++	0.01	-0.11
DAYS TO FLOWER		0.00	-0.10	0.70++	-0.55++	-0.45++
DAYS TO MATURITY		0.00	0.19	0.65++	-0.03	-0.29+
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.16	0.10	0.27+	0.25+
NODULE HEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE HEIGHT 2		0.00	0.09	0.27+	0.19	0.10
PLANT	HEIGHT	0.00	0.05	0.76++	-0.30+	-0.26+
LOGGING		0.00	0.04	0.56++	-0.00	-0.17
SHATTER		0.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.00	1.00	0.03	0.28+	0.09
PODS PER	PLANT	0.00	0.03	1.00	-0.24	-0.34++
100 SEED	WEIGHT	0.00	0.28+	-0.24	1.00	0.51++
QUALITY	OF SEED	0.00	0.09	-0.34++	0.51++	1.00

TABLE 203 EXPERIMENT 190 YEAR 1976

REGION - SOUTH AMERICA COUNTRY - URUGUAY
 SITE - TACUAREMBO ELEVATION - 120 M
 LATITUDE - 31 DEG. 42 MIN. S LONGITUDE - 55 DEG. 39 MIN. W
 COOPERATOR - LUIS AMENDOLA DATE HARVESTED - MARCH, 1977
 DATE PLANTED - DECEMBER 1, 1976 18%, CLAY 20%, PH 4.6
 SOIL TYPE - SAND 62%, SILT 18%, CLAY 20%, PH 4.6
 FERTILIZER USED (KG/HA) - N 30.0, P 45.0, K 30.0
 AMOUNT OF MOISTURE - 790 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
3	BRAGG	4170.83	59.00	150.00	58.75	0.00	0.55	0.00	112.73	4.25
9	WILLIAMS	3777.01	38.00	109.00	98.00	0.00	0.83	0.00	96.23	1.00
14	FORREST	3744.92	59.00	141.00	28.50	0.00	0.37	0.00	109.73	5.00
4	RANSOM	3729.91	59.00	155.00	63.50	0.00	0.42	0.00	101.20	2.75
12	DAVIS	3601.97	72.00	141.00	40.50	0.00	0.51	0.00	107.30	3.00
2	WOODWORTH	3519.04	38.00	99.00	78.75	0.00	0.57	0.00	91.27	1.00
11	COBB	3281.07	72.00	148.00	19.25	0.00	0.24	0.00	111.65	1.75
10	CLARK 63	3267.32	38.00	109.00	101.75	0.00	0.84	0.00	100.43	1.00
15	COLUMBUS	3253.98	43.00	130.00	133.00	0.00	1.16	0.00	103.95	1.50
16	ESSEX	3194.81	50.00	141.00	43.25	0.00	0.49	0.00	92.92	2.75
6	PICKETT 71	3124.37	66.00	141.00	13.50	0.00	0.14	0.00	93.50	3.50
1	CALLAND	3101.87	38.00	109.00	59.00	0.00	0.67	0.00	99.47	1.00
8	BOSSIER	3060.20	72.00	151.25	24.25	0.00	0.27	0.00	112.78	3.75
5	HILL	2977.26	59.00	130.00	21.50	0.00	0.14	0.00	99.30	3.75
7	CUTLER 71	2973.51	38.00	109.00	86.25	0.00	0.80	0.00	96.15	1.00
13	IMPROVED PELICAN	2176.27	72.00	166.00	5.50	0.00	0.05	0.00	120.45	2.75
	GRAND MEAN	3309.65	54.56	133.08	54.70	0.00	0.50	0.00	103.07	2.48
	STANDARD ERROR OF A VARIETY MEAN	147.21	0.00	0.31	12.66	0.00	0.13	0.00	2.65	0.30
	COEFFICIENT OF VARIATION	8.90%	0.00%	0.47%	46.29%	0.00%	53.32%	0.00%	5.14%	24.43%
	5% LSD VARIETY MEANS (*****=NS)	419.31	0.00	0.89	36.06	0.00	0.38	0.00	7.54	0.86
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)										
	YIELD	1.00	-0.14	-0.12	0.28+	0.00	0.29+	0.00	-0.12	0.10
	DAYS TO FLOWER	-0.14	1.00	0.83++	-0.69++	0.00	-0.62++	0.00	0.56++	0.63++
	DAYS TO MATURITY	-0.12	0.88++	1.00	-0.55++	0.00	-0.50++	0.00	0.59++	0.65++
	NODULE NUMBER 1	0.28+	-0.69++	-0.55++	1.00	0.00	0.86++	0.00	-0.31+	-0.49++
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.29+	-0.62++	-0.50++	0.86++	0.00	1.00	0.00	-0.42++	-0.42++
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
	PLANT	-0.12	0.56++	0.59++	-0.31+	0.00	-0.20	0.00	1.00	0.38++
	LODGING	0.10	0.63++	0.65++	-0.49++	0.00	-0.42++	0.00	0.38++	1.00
	SHATTER	-0.57++	0.33++	0.43++	-0.30+	0.00	-0.32+	0.00	0.46++	0.05
	HARVEST	0.15	-0.31+	-0.38++	0.09	0.00	0.02	0.00	-0.41++	-0.12
	PLANTS	-0.01	0.82++	0.76++	-0.68++	0.00	-0.53++	0.00	0.54++	0.78++
	PODS PER PLANT	-0.01	-0.50++	-0.42++	0.57++	0.00	-0.55++	0.00	-0.14	-0.50++
	100 SEED WEIGHT	0.44++	-0.50++	-0.42++	-0.26+	0.00	-0.18	0.00	0.31+	-0.07
	QUALITY OF SEED	-0.33++	0.12	0.19	-0.26+	0.00	-0.18	0.00	0.31+	-0.07

TABLE 203 EXPERIMENT 190 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	BRAGG	1.00	279.50	56.50	22.22	2.25
9	WILLIAMS	1.00	307.25	23.38	22.08	1.00
14	FORREST	1.00	266.25	68.32	16.47	3.75
4	RANSOM	1.00	264.50	38.92	20.39	2.00
12	DAVIS	1.00	287.75	46.75	19.93	1.75
2	WOODWORTH	1.00	311.25	22.47	18.71	2.75
11	COBB	1.00	251.25	60.80	19.19	5.00
10	CLARK 63	1.00	286.75	26.78	20.52	3.25
15	COLUMBUS	1.00	273.00	29.55	19.95	2.00
16	ESSEX	1.00	282.25	43.22	17.04	3.50
6	PICKETT 71	1.00	307.00	54.32	16.06	1.25
1	CALLAND	1.00	297.25	22.92	21.48	3.00
8	BOSSIER	1.00	182.50	58.12	17.98	1.00
5	HILL	1.00	345.25	55.92	15.95	2.00
7	CUTLER 71	1.00	243.00	24.97	21.80	2.50
13	IMPROVED PELICAN	2.00	266.25	59.37	16.05	5.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.06	278.19	43.27	19.11	2.63
COEFFICIENT OF VARIATION		0.00	7.82	2.65	0.39	0.29
5% LSC VARIETY MEANS (*****=NS)		0.00%	5.62%	12.25%	4.04%	22.45%
		0.00	22.27	7.55	1.10	0.84
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	-0.57++	0.15	-0.01	0.44++	-0.33++
DAYS TO	FLOWER	0.33++	-0.31+	0.82++	-0.50++	0.12
DAYS TO	MATURITY	0.43++	-0.38++	0.76++	-0.42++	0.19
NODULE	NUMBER 1	-0.30+	0.09	-0.68++	0.57++	-0.26+
NODULE	NUMBER 2	0.00	0.00	0.00	0.00	0.00
NODULE	HEIGHT 1	-0.32+	0.02	-0.53++	0.55++	-0.18
NODULE	HEIGHT 2	0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.46++	-0.41++	0.54++	-0.14	0.31+
LOGGING		0.05	-0.12	0.78++	-0.50++	-0.07
SHATTER		1.00	-0.08	0.25+	-0.34++	0.47++
PLANTS	HARVEST	-0.08	1.00	-0.22	-0.10	-0.07
PODS PER	PLANT	0.25+	-0.22	1.00	-0.55++	0.24
100 SEED	WEIGHT	-0.34++	-0.10	-0.55++	1.00	-0.24
QUALITY	OF SEED	0.47++	-0.07	0.24	-0.24	1.00

TABLE 204 EXPERIMENT 152 YEAR 1976

REGION - SOUTH AMERICA
 SITE - TREINTA Y TRES
 LATITUDE - 33 DEG. 18 MIN. S
 COOPERATOR - MIGUEL A. BERSAIN
 DATE PLANTED - NOVEMBER 19, 1976
 SOIL TYPE - CLAY, PH 5.8
 FERTILIZER USED (KG/HA) - N 30-0, P 35-2
 AMOUNT OF MOISTURE - 900 MM
 NUMBER OF IRRIGATIONS - 1 (50 MM)
 LOCAL VARIETY - CTS-18

COUNTRY - URUGUAY
 ELEVATION - 31 M
 LONGITUDE - 55 DEG. W
 DATE HARVESTED - APRIL, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
3	BRAGG	3330.67	78.00	153.00	0.00	821.50	0.00	3.80	97.25	1.00
4	RANSOM	3073.95	76.00	158.25	0.00	779.75	0.00	3.03	89.00	1.00
6	PICKETT 71	3064.36	80.00	148.00	0.00	601.25	0.00	2.80	73.90	1.00
12	FORREST	2942.25	66.50	149.75	0.00	605.50	0.00	4.20	86.15	1.00
16	CTS-18	2922.67	68.50	136.00	0.00	643.00	0.00	3.38	69.95	1.00
11	DAVIS	2815.98	80.00	151.00	0.00	469.50	0.00	2.53	83.30	1.00
15	COLUMBUS	2739.30	58.00	134.00	0.00	538.75	0.00	2.83	70.25	1.00
5	HILL	2671.37	71.75	136.00	0.00	596.75	0.00	2.85	84.00	1.00
1	CALLAND	2515.50	46.00	128.25	0.00	513.25	0.00	3.18	55.55	1.00
8	BOSSIER	2420.07	82.75	156.00	0.00	1176.75	0.00	5.92	80.60	1.00
9	WILLIAMS	2273.37	48.00	124.00	0.00	649.75	0.00	3.75	50.00	1.00
7	CUTLER 71	2235.86	54.00	128.00	0.00	439.75	0.00	2.43	56.15	1.00
10	CLARK 63	2220.03	50.00	126.00	0.00	620.25	0.00	2.95	59.45	1.00
2	WOODWORTH	2078.33	46.00	125.00	0.00	485.50	0.00	2.35	55.50	1.00
14	BEESON	1946.64	43.00	119.00	0.00	403.00	0.00	2.15	43.65	1.00
13	WELLS	1795.78	43.00	117.00	0.00	589.25	0.00	3.50	38.45	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% 1ST VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.65++	0.67++	0.00	0.23	0.00	0.08	0.78++	0.00
DAYS TO FLOWER		0.65++	1.00	0.93++	0.00	0.42++	0.00	0.24	0.86++	0.00
DAYS TO MATURITY		0.67++	0.93++	1.00	0.00	0.44++	0.00	0.28+	0.88++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.23	0.42++	0.44++	0.00	1.00	0.00	0.82++	0.36++	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.08	0.24	0.28+	0.00	0.82++	0.00	1.00	0.20	0.00
PLANT		0.78++	0.86++	0.88++	0.00	0.36++	0.00	0.20	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER		-0.30+	-0.34++	-0.34++	0.00	-0.23	0.00	-0.20	-0.36++	0.00
PODS PER PLANT		0.19	-0.29+	-0.27+	0.00	-0.33++	0.00	-0.33++	-0.06	0.00
100 SEED WEIGHT		-0.19	0.88++	0.80++	0.00	0.49++	0.00	0.35++	0.74++	0.00
QUALITY OF SEED		-0.50++	-0.58++	-0.43++	0.00	-0.18	0.00	-0.13	-0.40++	0.00
		-0.50++	-0.77++	-0.78++	0.00	-0.33++	0.00	-0.19	-0.67++	0.00

TABLE 204 EXPERIMENT 152 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	BRAGG	1.00	180.50	43.25	19.43	1.00
4	RANSON	1.00	160.00	47.00	19.33	1.50
6	PICKETT 71	1.00	151.25	55.25	14.88	1.00
12	FORREST	1.00	142.00	49.50	16.68	1.00
16	CTS-18	1.00	161.75	55.00	16.88	2.75
11	DAVIS	1.00	157.25	41.50	17.23	1.00
15	COLUMBUS	1.00	149.50	30.25	21.10	4.25
5	HILL	1.00	160.50	51.50	16.10	2.75
1	CALLAND	1.00	177.00	19.00	23.08	4.50
8	BOSSIER	1.00	74.25	68.50	17.40	1.25
9	WILLIAMS	1.00	164.50	19.25	21.28	2.25
7	CUTLER 71	1.00	134.25	26.50	20.80	3.25
10	CLARK 63	1.00	169.50	24.25	19.85	3.00
2	WOODWORTH	1.00	170.25	24.50	17.43	3.25
14	BEESON	2.00	152.50	18.23	21.75	3.50
13	WELLS	1.00	155.75	17.75	18.20	4.25
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		1.06	153.80	36.95	18.84	2.53
COEFFICIENT OF VARIATION		0.00	8.97	2.57	0.45	0.25
5% LST VARIETY MEANS (*****=NS)		0.00%	11.66%	13.93%	4.78%	20.13%
		0.00	25.55	7.33	1.28	0.73
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	-0.30+	0.19	0.56++	-0.19	-0.50++
DAYS TO FLOWER		-0.34++	-0.29+	0.88++	-0.58++	-0.77++
DAYS TO MATURITY		-0.34++	-0.27+	0.80++	-0.43++	-0.78++
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		-0.23	-0.33++	0.49++	-0.18	-0.33++
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		-0.20	-0.33++	0.35++	-0.13	-0.19
PLANT	HEIGHT	-0.36++	-0.06	0.74++	-0.40++	-0.67++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	-0.01	-0.29+	0.31+	0.19
PLANTS	HARVEST	-0.01	1.00	-0.46++	0.17	0.17
PODS PER	PLANT	-0.29+	-0.46++	1.00	-0.64++	-0.63++
100 SEED	WEIGHT	0.31+	0.17	-0.64++	1.00	0.53++
QUALITY	OF SEED	0.19	0.17	-0.63++	0.53++	1.00

